CHAPTER V

THE INSTRUMENT OF WAR

Force rules the world still,
Has ruled it, shall rule it;
Meekness is weakness,
Strength is triumphant
Over the whole earth.
—LONGFELLOW.

1. THE POLITICAL INSTRUMENT

CLAUSEWITZ considered that war was not merely a political act but the real political instrument.[1] I have no quarrel with this assertion; nevertheless, I prefer to look upon war as the condition resulting from a more strenuous and concentrated application of force to the normal political instruments used in the maintenance of peace. In brief, during peace-time tranquillity is established by law and order, which is maintained not only by force, but by a regard for individual liberty and a just distribution of wealth. Force is always present, but in a well-balanced country it is kept out of sight. In war force steps to the front, and hitherto has been the main political instrument to compel an enemy to accept the will of the nation.

From the highest aspect of this subject, the nation itself is the political instrument, but as, outside its government, it possesses no co-ordinated mental power, the government is the craftsman who makes use of it, and, as the power of the nation is threefold, the political instrument is threefold in form. The government can bring economic, moral (ethical), and military force to bear against its enemy. It can directly, through political action, bring economic and moral pressure to bear by means of financial and commercial restrictions and by propaganda.[2] It

[1] Sir Walter Raleigh considered war the failure of political action, rather than its instrument.

[2] The value of propaganda was much exaggerated during and after the Great War of 1914–18. Lies nearly always recoil on the head of the liar; and most of British propaganda consisted in the kettle calling the pot black. The force of true propaganda lies in its truth, as truth is so often allied to fearlessness. A nation, or man, who is not afraid of hearing the truth is of high *moral*.

can also indirectly attack the will of its adversary by means of its fighting forces.

I do not intend here to examine the purely political activities of war, not because they are unimportant, for they are of ever-increasing importance, but because they form subjects concerning which I am not well acquainted. I will therefore in this chapter concentrate my attention on the organization of the military instrument.

2. The Military Instrument

In chapter iii. of this book I accepted as my architypal organization the body of man, and, by examining this organization, I came to the conclusion that it revealed a threefold order of structure, maintenance, and control, and that each of these factors was built of three elements—stability, activity, and co-operation. These facts—and I think that they are true facts—I will accept as my present base of action.

The military instrument is man, or a number of men. To-day, in most highly organized nations, it consists of an army, a navy, and an air force; its military power is consequently a threefold one, for its force can be expended on land, at sea, and in the air. Until recently war space was two-dimensional, to-day it is three. We have arrived, therefore, at a close agreement between war and the conception of space itself.

Man moves in three dimensions, so to-day does the military instrument, the three Services of which in themselves do not necessarily give structure to the whole, since they constitute the "material" out of which structure is designed. This design depends on the relationship between these three Services and the conditions which are likely to confront the nation in war. In the past our naval strength has been the base of our military action, and as long as our military forces maintain their present organization this must remain so. How far air-power will influence military and naval organization it is difficult to say; and it is not here that I intend to seek a solution to this problem, since my immediate object is to accentuate the importance of structure in the military instrument, and not to examine the activities springing from it. The main point is that a highly organized nation has two or three fighting Services; consequently, if the structure of the military instrument is to possess a high stability, then the proportional strengths of these Services and the nature of their separate organizations must form an articulated, co-operative whole. That is, they must fit together economically, and, if possible, as economically as the bones of

the human skeleton. As Jackson says of an army: "The whole conspires in one purpose; for, though an army consists of many parts, it is only one instrument, constructed for the accomplishment of one design." [1] Similarly, on a larger scale, must the whole of the fighting forces of a nation be set together to accomplish one design.

Without such a disciplined instrument, control is next to impossible. If the bones of the human body were not so shaped that they formed an articulated skeleton the brain could not control the body, and, without control, structure proves not only useless but detrimental. For, though the wielding of the instrument demands skill on the part of the wielder, "it is necessary that the means, placed in his hands, be rendered capable of a uniform and systematic action, calculated to second his views in the direction of his force. For, it being from the perfection of the instrument in its primary movement that decisive effect results in application, an army, correctly organized and animated internally, has often been found to conquer without the aid of uncommon ability in the general; an able general has often been seen to fail in his designs from the mere defects of his instrument—that is, the want of harmony in its mechanical movement, resulting from an injudicious composition of the subordinate parts. Hence the primary organization of the materials of an army, supported by the discipline of tactic, is an object of great and essential importance in controlling events in war." [2]

This is not only an undoubted historical fact, which has proved itself time and again, but a very important fact, for, as it is not possible to assure command being carried out with genius, it is, nevertheless, possible to create a well-organized instrument. In the case of man, his organization has grown as a whole; it has not developed in parts and then been set together. Though with the military instrument the problem is not so simple, there is no reason why one man, or a committee of men, working scientifically, should not so design its parts that they will fit together in place of being stuck together. Of this Jackson says: "The direction of the action of the military instrument is under the management of the military officer; the organization of its parts and the adjustment of its powers is more peculiarly the work of the scientific philosopher. The fundamental arrangement requires a deep knowledge of the principles of elements, whether physically or morally considered." [3] This is most true, for, if this articulation is guaranteed, then, when it comes to

[1] *A Systematic View of the Formation, Discipline, and Economy of Armies*, Robert Jackson, p. 27. [2] *Ibid.*, pp. 138, 139. [3] *Ibid.*, p. 138.

war, it will be found possible to unify the control of the three fighting Services under one group of men, and eventually under the direction of one man, and so establish a complete command over the instrument.

Thus far, I think that the comparison of the military instrument to the human body is logical; equally so are the processes of maintenance, though at first thought this might not appear to be so. In the human body the organs of maintenance are internal; nevertheless, they are dependent on external supply. In the case of a ship they are internal, because mechanical power renders possible their carriage in whole or in part. But in the case of an army, depending on muscular movement, the organs of maintenance are so elementary that they have to be supplimented by an organization apart from the fighting body. Though external supply must always remain—since even ships cannot indefinitely be maintained at sea, and less so such mechanical arms as aeroplanes and tanks—the more the organs of maintenance are brought within the fighting body the more direct will be the action of this body, since the less will the protection of the administrative services have to be considered.

For a moment I will turn to the external aspect of this question. For example, if the instrument were to consist of, I will suppose, three men, each requiring different articles of supply, such as different rations, uniforms, tents, weapons, etc., the maintenance of such a force would be more complex than if all three required the same. So also if the military instrument consists of an army, navy, and air force, the more their maintenance can be unified the more easily can the whole be controlled.

It is not my intention to press this question, since my object is not to reform, or reconstruct, the military instrument, but, instead, to devise a piece of mental machinery which will enable any intelligent man to analyse existing military organizations and discover their defects.

3. The Structure of the Instrument

I will now examine in more detail the organization of the military instrument. Its structure is pre-eminently tactical, consequently its parts must be so set together as to enable its commander to develop its maximum fighting-power. In the case of two men fighting, the will of each is expressed by means of his fists. Each, if he is a trained fighter, protects himself with one arm and hits out with the other. The protection afforded by his left arm is the offensive base of action of his right. If his

protection is defective, he may be thrown entirely on the defensive; that is to say, he may have to supplement his protective endeavours by means of his right arm. If he is strong and skilful, he may at times be able to supplement his right by his left. Whether he is driven back or whether he advances, the relationship between protection and offensive action is mobility—movement backwards or forwards, away from or towards the object directing his will.

Here we watch in operation the three elements of stability, activity, and co-operation in the forms of resistance, pressure, and movement. Foch, when discussing *Economy of Force*, describes how a general should "set up his forces in a *system* such that these forces may finally act in conjunction." His system is "a combination of the two qualities present in all troops," namely, "resisting power" and "striking power."[1] Lloyd is still more explicit; in brief, he says: "War is a state of action. An army is the instrument with which every species of military action is performed; like all other machines, it is composed of various parts; and its perfection will depend, first, on that of its several parts; and, second, on the manner in which they are arranged; so that the whole may have the following properties, viz. strength, agility, and universality; if these are properly combined, the machine is perfect. Care must be taken that not any of these properties is increased by diminishing another, but that the whole may be in proportion."[2] To Lloyd, strength is the collective vigour and weapon-power which enable an army to attack and defend, agility is quickness of manœuvre, and universality is to be sought in formation, which should permit of it moving against all kinds of troops and over all kinds of ground without changing its structure. He writes:

"The first problem in tactics should be this: how a given number of men ought to be ranged so that they may move and act with the greatest velocity; for on this chiefly depends the success of all military operations.

"An army superior in activity can always anticipate the motions of a less rapid enemy, and bring more men into action than they can in any given point, though inferior in number. This must generally prove decisive, and ensure success."[3]

I have inserted these quotations not only because they support my argument, but because they show how long it takes to establish a true fact. Lloyd, be it remembered, wrote his book about a hundred and fifty years ago.

Turning from the individual fighter to armies, navies, or air

[1] *The Principles of War*, p. 58.
[2] *History of the Late War in Germany*, part ii, p. 1. [3] *Ibid.*, p. 2.

fleets, we find action to be similar. The commander fights with two forces—a stable force which can resist pressure, and an active force which can exert pressure. These two combined, as Foch rightly says, constitute the foundations of tactical power, the commander making use of them just as an individual boxer does of his fists. In the case of the single man, should he wish rapidly to gain contact with his adversary, or escape him, he makes use of his legs. As it is not feasible to do the same with an army (I will now deal with armies only, as this will make the problem simpler), a third, or mobile, arm has to be introduced, which can operate from the other two, these two forming its base of action.

What do we see here? The expression of the three elements of force through three separate, though closely related, arms, or bodies of troops. Each of these arms, in its turn, in order to co-operate with the remaining two, should possess within itself stability, activity, and mobility, or, in tactical terms, protective, offensive, and mobile power. We thus obtain three main arms, each built round the three elements, and each expressing more fully than the remaining two one of these three elements. When structure is developed from these three, then tactics flourish as a high art; when it does not, then a period of decadence supervenes.

In illustration of the above, I will first examine the Grecian phalanx. Its combatants were divided into three main categories of soldiers: the light infantry, or *psiloi;* the heavy infantry, or *hoplites;* and the cavalry, or *cataphracti.* We here get a three-fold division of tactical power. The heavy infantry give stability to the whole organization; they form, so to speak, the bones of the phalanx. The light infantry operate from this stable base and demoralize the enemy; they can do so because they are more active than the heavy infantry. If the heavy infantry were to advance directly upon the enemy's heavy infantry, they could only engage on equal terms, or else, should the enemy retire, they will find it difficult to pursue, and still remain in an organized formation so necessary to withstand cavalry.

The light infantry can move quicker than the enemy's heavy infantry; consequently, if the hostile phalanx falls back, they can continue to annoy it at close quarters. If it advances, the light infantry retire behind their protective shell—the *hoplites.* They may not be so mobile as the cavalry, but they are more active, because their power of movement is assimilated more closely with their offensive and protective powers, whilst with cavalry it is separated from them, because the horse is not part of the man.

By annoying the enemy, the light infantry compel the hostile

soldiers to protect themselves ; that is, to stabilize their activity. The phalanx then catches up with the fixed enemy and breaks his organization into pieces. Eventually the cavalry follow and destroy the shattered fragments.

From these three elemental types of soldiers we see evolved three primary activities :

(i.) The light infantry demoralize, and, by instilling fear into the enemy, they fix him.
(ii.) The heavy infantry disorganize, and, by disjointing the hostile skeleton, they render it inarticulate.
(iii.) The cavalry destroy and, by stripping the flesh off the disjointed bones, they annihilate the enemy's resistance.

It will, I hope, be realized that this example is a very general one, for many battles have been won by light, or heavy, infantry, or cavalry, alone. But general though it be, the point I am out to accentuate is that the most economical military organization is one which expresses the closest relationship to the organization of the human body.

To continue the illustration. In the early Middle Ages infantry practically disappear, and, as cavalry are alone used, tactics become decadent. With the discovery of gunpowder, infantry reappear in full, and take the place of the old light infantry—the demoralizing agent. A new arm is introduced—the cannon—which carries out the protective duties of heavy infantry. All this takes, comparatively speaking, an immense time, for the only process of evolution is trial and error : Failure is the master, not forethought. Eventually we obtain the three arms as we know them to-day—artillery, infantry, and cavalry. The first forms the base of action of the second, and the second of the third. To-day, on account of the supremacy of fire-power, cavalry have largely lost their mobility, consequently tactics have once again entered a decadent stage, which was very noticeable during the Great War of 1914–18, for it was a war of tactical mediocrity.

I have entered into this somewhat detailed analysis with a definite purpose, namely, to show what constitutes fighting power, and not merely the type of soldiers who expend it. Artillery, infantry, and cavalry *are not necessarily essential arms*, because there is not such a thing as an essential arm. Arms are but means towards an end, and these means are constantly changing. What is essential is fighting force which expresses in full the three elementary powers. Wellington thought in terms of artillery, infantry, and cavalry, and not in those of

pikemen, archers, and knights. Yet Edward III thought in these terms, and rightly so, since in his day these arms did express the elements of force. To-day we still think in the terms Wellington thought in, not because they express the highest forms of protective troops, combat troops, and pursuit troops, but because we fail to understand their spirit and can only grasp their names. In brief, we, or most of us, are obsessed by nomenclature, and are prejudiced through ignorance in the essential qualities of fighting force. Not until we overcome these prejudices shall we be able to think scientifically.

Finally, as regards structure, we arrive at the following conclusions: the structure of fighting force must be such that it will permit of the enemy forces being rapidly demoralized, disorganized, and destroyed, and, simultaneously, prevent the enemy carrying out these acts. Three types of troops are required, and these I have called protective troops, combat troops, and pursuit troops. These form the threefold structure of fighting force.

4. The Maintenance of the Instrument

Granted that the commander is the brain of the army he controls, then, to maintain its fighting force he must be prepared to make good deficiencies and injuries; in fact, he must supply his army and repair it. The first of these two requirements form the base of the second, for supply represents the stable element, and repair the active; and the link between these two is transportation, which expresses the mobile element.

On the one hand we have the structure of fighting force and on the other its maintenance. Obviously, these are closely related, since the second makes good the wastage of the first. The second is in fact the base of the first, and the more perfectly these two are correlated, the more fully can the control of the commander find expression.

If the structure of fighting force is such that supply is rendered difficult, however perfectly fighting force may be expressed, its endurance will be low, for it will lack staying-power. For example, in Japan there exists practically no automobile industry, and a very limited home supply of petrol; therefore, before Japan can mechanicalize her army, she must establish mechanical industries within the country, and assure her petrol supply, either by command of the sea or storage on land. We thus see that maintenance is the link between fighting force and national power; consequently the structure of the military instrument does not only depend on the nature of the resistance it may meet, but also on the resources of the country it is protecting. Maintenance,

to be reliable, must be based, therefore, on a correlation between military demand and national supply.

Similarly with repair, if the military instrument is so designed that its repairs demand such highly-skilled labour that the fighting forces themselves cannot provide it, or a sufficiency of it, unless the nation can do so without detriment to itself, the military instrument will either fall into ruin or actually injure the nation it is intended to protect.

Just as we obtain certain relationships between supply and structure, and repair and structure, so do we obtain others between transportation and structure. We know that the fighting and administrative services have to move, but though we realize that these movements must be synchronized, we consistently fail to appreciate the fact that, whilst but a few years ago movement on land was based on muscle-power, to-day maintenance is largely based on mechanical-power, and fighting force on muscular. We still find infantry considered the decisive arm, an arm with a maximum speed of three miles the hour, and with a radius of action of less than twenty miles a day over a continuous period. In the past, the supply and baggage columns of an army were called its impedimenta, because they delayed its progress on the line of march. Now it is the reverse, and so complete is this *volte face* that when infantry require to move rapidly they empty their lorries and get into them. The most efficient relationship between the combatant arms and the administrative services is one which is based on a common means and speed of movement; because similarity of means and speed simplify structure and maintenance, and consequently facilitate control.

5. The Control of the Instrument

The military instrument is the weapon of the commander; it is his body through which his will manifests and attains expression; and as a very intimate relationship exists between the brain and the body of man, so should an equally intimate relationship exist between a commander and his command.

With nations such as ourselves we find that the military instrument comprises three great Services—an army, a navy, and an air force; and if these are not controlled by one brain, unity of action, and, consequently, economy of force, are not possible. If these three Services are so organized that it is beyond the powers of one man to control them, the defect must lie in their structure, for, if we accept the human body as our model, control is always possible. We cannot dispense with

control, and we can change structure, since the powers of each of the three Services are compounded from identical elements. To hand over war operations to three separate controllers is tantamount to giving a man three heads. When this is done, a monster is created, and, be it remembered, that Cerberus fell victim to the first man who used his one head against its three.

From the mythological aspect of control I will turn to history, and what do we see? We discover that the greatest commanders the world has seen have been those who possessed the fullest powers of control over the instrument of war, and, consequently, over the military instrument, whether it consisted of one or more than one Service. Alexander is an autocrat, for he commanded not only the civil instrument but also the military, and his military instrument comprised both an army and a fleet. Hannibal's failure is due to his lack of control over the civil instrument. Cæsar's success lies in his power to control it. Gustavus is king and general; Marlborough is a generalissimo—he commands on land and sea and, through his wife, he controls the Government at home. Frederick is an autocrat and so is Napoleon. My object here is not to accentuate the desirability of autocracy, but that, if, in war, control is essential, then the freer the will of the commander the more economical will be the expenditure of force.

If we again turn to history, there can be little doubt that many of the great captains of the second degree were in genius equal to these autocrats, but because they were not autocrats, they were unable to attain an equal share of fame. The one power they lacked was complete unity of command, and the more they were restricted in asserting this power, the less were they able to make use of their genius to direct even the purely military resources at their disposal towards gaining their object.

Unity of command expresses unity of will, and, as in the human body, military unity of will and of purpose ultimately find expression in the will of one man. Napoleon understood this full well when he said: (in war) "men are nothing; it is one man who matters"; and again: "The secret in war does not lie in the legs; it resides entirely in the brain that sets the legs in motion." Not the brain of the soldier, but the brain of the general-in-chief. Machiavelli, no mean judge of war, was equally emphatic; he said: "Let only one command in war: several minds weaken an army."

I have laboured this point, because the supremely important fact to be deduced is that, as the object of war is one, control is one, and if this control is shared between several, then the objective cannot be economically gained. In the last great war

this veritable axle-pin of generalship was removed from the chariot of command. For four years the Allied Armies floundered through what I believe history will one day denote as a series of the most uneconomical campaigns ever fought in a war of the first magnitude, and, only after a stupendous squandering of lives, resources and money, was the axle-pin pushed home and the war won.

If power of control, vested in one man, is essential, equally is it essential that the structure of the military instrument should be such that it will react to this control. Alexander possessed genius and control, but had he been given the hordes of Darius in place of his superb little army, it is most unlikely that he would have conquered the known world of his period. The military instrument must, therefore, be so fashioned that it can be controlled. In structure it must be simple, its maintenance must be easy, and its whole organization must work automatically, so that the will of the commander can be concentrated on the expenditure of its force.

When I say that power of control must be vested in one man, I mean this in the fullest sense of the words, but I do not mean that one man constitutes the machinery of management.

To revert to an army; besides its commander, it possesses a headquarters which, like the human brain, is "a great administrative governing machine." A portion of the brain (particularly the grey matter in the medulla oblongata at the base of the brain) and spinal cord regulate the reflex activities of the body "without any voluntary control, or even without any consciousness, on the part of the individual"[1]; the directing portions are free to control volition. A similar division of work should be established in every headquarters, management being separated from command, so that command, which eventually must be centralized in the brain of the commander, is free from all routine duties. Thus freed, the brain "can not only drive machines; it can invent and create them . . . It balances and determines the fates of armies, fleets and nations."[2]

The brain depends for its information on the senses, and, for the execution of its orders, on the nerves. We thus obtain three requirements to control: information, decision and communication, the third being the co-operative link between the first and second and the expenditure of fighting force.

If information is regarded as the stable base, then the headquarters of an army is the great receiving, registering and interpreting station, the active laboratory of sensations, of thoughts

[1] *The Physiology of Mind* (1877), Henry Maudsley, p. 136.
[2] *The Engines of the Human Body*, Arthur Keith, p. 235.

and of ideas. The system of communication being the link which connects the organs of information to those of management and command. The organization of military control is the same as in the human body, and, when this is realized, to improve existing organization we must study the body of man—the brain and sensory and nervous organs, and attempt to amend our present system of control accordingly.

6. The Higher Control of the Instrument

Thus far I have dealt with control in general terms, and mainly with reference to only one fighting force—the army. I have laid down as an axiom that economy in control can only be attained if one man directs the instrument, not only as a military but as a national weapon, and I have quoted Alexander, Napoleon and others. These men were autocrats and dictators, and though even a democratic nation, when reduced to the last extreme by the pressure of war, will appoint such a man to direct its course, it is too much to expect a democracy to agree to dictatorship, either during peace-time or at the beginning of a war. Though democratic government is government by mediocrity, it is useless kicking against these pricks, therefore it is useless suggesting autocratic control of the instrument, for this would necessitate the selection of a genius as the controller, and nothing a democracy hates and fears more than genius; to the democrat genius is a Satanic force.

In chapter iii. I examined the threefold order of national power, and in this present chapter I have explained that the nation itself is the instrument of war: the question now arises, how can we establish a workable piece of machinery which will control the national forces without infringing the principles of democracy.

Of these principles, the underlying one is rule by the will of the majority, and, as this will is always fluid and consequently always changing, it is not possible to expect careful and progressive war preparation on the part of any democratic government. The masses do not like war, for they are cowardly; therefore their political representatives shun its preparation.

We cannot do away with democratic government, but we could, I think, establish within a democratic nation an advisory council which would consider the question of national defence, which would arrive at decisions on this question and place these before the government for their consideration. In an empire this council would be imperial instead of national.

The organization of this council should follow on the lines of the threefold order. Under it should be established three great departments :

(i.) A department of national (or imperial) ethics, to study national psychology, legislation, local opinion, education and propaganda.

(ii.) A department of national (or imperial) economics, to study national resources, finance, tariffs, science, industry, agriculture, commerce and emigration.

(iii.) A department of national (or imperial) defence, to study the grand strategy of the nation.

These three departments would furnish the council with all possible information for correlation and consideration.

Once having co-ordinated the national powers which go to build up the national instrument of war, the next step is to co-ordinate the fighting Services so that their forces may be economized.

The organization which suggests itself, if the threefold order be kept in mind, is one similar to that of the national council, and as this organization must come under the control of the government, I will call it the ministry of national defence. Its functions should be as follows :

(i.) Ethical : To establish harmony between the three Services and between the Services and the nation.

(ii.) Economic : To divide the bulk sum, voted yearly by the Government for purposes of defence, among the three Services proportionately according to policy and to assess the resources of the country for war.

(iii.) Defence : To convert the policy of the national council as accepted by the Government into a combined plan of action.

We thus obtain a threefold order of control within the national, or imperial, body.

(i.) The national, or imperial council, is the soul of the body ; it collects the innumerable national and international sensations and reduces them to harmful and beneficial sentiments.

(ii.) The Government is the mind of the body ; it receives the sentiments of the national council, and, reasoning them out, decides what is true or erroneous.

(iii.) The ministry of national defence is the muscles of the body ; its duty is action, constructive or destructive.

Though this ministry may be directed by a politician, its true business head should be a generalissimo controlling the three Services. Thus, he will direct three instruments as one instrument, and complete control is established.

7. The Study of the Instrument of War

I have now very briefly analysed what I mean by fighting force. I have taken the human body as my model, and then, turning to the nation which is a collection of human bodies, I have assembled all the national powers and resources in one group and have called this group the instrument of war ; needless to say, it is also the instrument of peace. Finally, I have ended with one man who, the closer he can control the forces of this group the more economically will these forces be expended.

Now to apply this knowledge. If our intention is to study military history or to work out a military plan, the first thing we should do is to examine the opposing instruments. Two nations confront each other ; what is the degree of fighting force each nation can apply ? In general terms, the answer to this question is a threefold one, namely, the thinking power, the staying power, and the fighting power of the nation and of its military instrument.

What is the quality of its thinking power? Especially what is the quality of the thoughts engendered by its military brain ? If we can discover what type of mentality we are confronted by and we analyse it, we shall be able to discover its strong and weak points, and shall then obtain a clue as how to direct our own will against it. If the instrument is controlled by one man, soldier or politician, then we should analyse his mental characteristics ; if by a group of men, then we should discover the predominating will in this group, for when war breaks out, in all probability this will will exert itself. We must examine the headquarter organization of the military instrument ; is it controlled by one organ or three organs, and, if by three, which is the predominating partner ? For this partner will exert the greatest strategical influence. We must examine the headquarters of each Service ; are they so constructed as to gain rapid information, give rapid decisions, and obtain rapid communication between body and brain, and brain and body ? All these points are points of vital importance to us as a commander, and when we study military history let us be the commander of one or both sides.

Once we have evalued the thinking power of the opposing forces, I suggest that we turn to their staying power and examine

all possible questions of maintenance, under the headings of supply, repair and transportation. I suggest this course because I am convinced that strategy and tactics are founded on administration, and that the maintenance of the military instrument is founded on the resources of the nation, not only military, but ethical, economic and political as well.

Staying power is the base of fighting power, and it is fighting power which renders thinking power concrete and objective in war. The structure of the military instrument must enable the highest fighting power to be developed, and if our examination shows us that this fighting power is defective, then we may conclude that thinking power is also at fault; for fighting power expresses thinking power, consequently it is correlated to it.

Fighting power is a compound of stability, activity, and mobility, or of resistance, pressure, and the co-operative energy engendered by these two. The protective, close combat, and pursuit troops of an army are its two arms and its legs. What are their individual values and their combined value? If we can discover these we shall understand their tactical values, and, in history, we shall be able to watch how they have been used; or, on active service, understand how to use them.

To conclude: in war we are faced by a nation, which is the instrument of war we have to meet. This nation possesses a civil and a military side, and the correlation between these two sides is grand strategy. The civil side is the base of the military side. The civil side comprises ethical, economic, and political power, all of which are means of war. The military side—an army, a navy, and an air force, or at least one of these forces. The military side is built out of three elements, and these three elements govern the structure, maintenance, and control of the military instrument. In an army, we must have three types of troops, namely, protective, close combat, and pursuit troops; we must have three systems of maintenance, supply, repair, and transportation; we must have three means of control—information, decision, and communication. Here are nine factors which give character to fighting force. What is its value? This question I will attempt to answer in the following three chapters.

CHAPTER VI

THE MENTAL SPHERE OF WAR

He who will not reason is a bigot, he who cannot reason is a fool, and he who dares not reason is a slave.—SIR W. DRUMMOND.

The beginning of all Wisdom is to look fixedly on Clothes . . . till they become *transparent.*—T. CARLYLE.

I. THE ELEMENT OF REASON

IN chapter iii. I examined "The Threefold Nature of Man," and I showed that it comprised three spheres of force—the mental, moral, and physical. In this and the next two chapters I will consider these, and in the present one the first.

As the brain and the nervous system control the body, and as the national head (King or President) and his Government control the nation, so also does a general and his staff control his army, or a generalissimo and his staff the combined fighting forces placed under him. In each case the aim or purpose is the same, the means alone change, and there can be no doubt that, if in the last two cases the control were as complete as in the first, both a nation or its military forces would become amazingly efficient instruments. I intend, therefore, to open this chapter with a brief examination of the controlling faculties of the mental sphere, namely, the reason, the imagination, and the will.

When I speak of mind, I am thinking of the intellectual qualities of man, of his thoughts, his ideas, and the decisions he arrives at. Man is a conscious animal; whatever he perceives is the result of sensation; all his experiences are based on sensations, and all his knowledge is ultimately based on experience. Though the data of experience are divided into several states of consciousness, in all of these we can discover three elements, namely, feeling, the forms of feeling, and the remembrance of feeling. The feeling itself may be compared to a plastic substance upon which is imprinted every sensation which is conveyed to it by the senses. The second are the categories of sensations, and these depend on the senses themselves; thus, there are categories of sight sensations, of hearing, of touch, etc. The third endows feeling with a

power to recognize two or more sensations of a similar nature, the new ones awakening the old.

Sensations are the only facts vouched us to work on, for they form the material of the mind, they give birth to thoughts, to ideas, and, finally, to judgments.

In the objective world errors do not exist; all things are controlled by law which works automatically and not consciously. Errors are subjective, they are the privilege of the mind, and so also is truth, which is not Reality but its reflection. We thus obtain two moods of reason, one which correctly reflects Reality and the other which contorts the reflection. We cannot abolish error and, if we could, we should possess no standard whereby to judge truth. It is through error that we arrive at truth, but only if we can rationally discover the degree of error. This means that we must understand our errors: what is their cause; what is their effect; whence do they come; whither do they lead? To answer these questions, we must understand the reasons for error. It is not that error excludes truth, or truth error, for they are moods of reason, and are consequently inseparable. Error is our teacher and truth the marks he allots to us for good work, and good work is accomplished by correct thinking, which is arrived at by less and less erroneous thinking.

What has all this got to do with war? Everything! There must be a reason more or less erroneous or true for a war, otherwise the war is a struggle of maniacs. There must be a reason for each action carried out during a war, and again it must be a good reason or a bad reason; and if we have no reason at all, which has frequently happened in war, we reduce ourselves to the position of lunatics.

If we understand the true reason for any single event, then we shall be able to work out the chain of cause and effect and, if we can do this, we shall foresee events and so be in a position to prepare ourselves to meet them. Our reason is the director of our actions and also the spirit of our plan. If we fail in our purpose, in place of blaming circumstances we should blame our reason, for the main fault lies there. We must analyse its motive and discover where it has failed us; thus, we shall turn errors to our advantage by compelling them to teach us. We must not allow ourselves to be enslaved by them, for they should be our masters, not our taskmasters.

Reason is the highest form of consciousness, it draws its "substance" from memory and, in the light of the imagination, it focuses memories according to the conditions of the moment. In war, as in peace, reason is the controlling faculty of the mental sphere. All our conscious actions emanate from reason, just as

all our bodily activities emanate from physical force, and, as I shall explain in another chapter, because military power is controlled by similar laws to those which govern force, consequently the one aim of the soldier is to harmonize his mind to the workings of these laws.

2. The Element of Imagination

If war were an exact science, reason in itself would be all but sufficient to arrive at correct judgments, but it is far from being exact, since it deals with the differences between living creatures in place of inanimate substances or quantities. In mathematics, two multiplied by two is always four, and in chemistry two molecules of hydrogen and one of oxygen always form water; but in psychology, and war is largely a matter of psychology, two ideas in one man's head do not necessarily lead to the same judgment as two similar ideas in another man's head, because each individual possesses a faculty called imagination, and no two imaginations are constant.

In war we deal, therefore, not only with known quantities—the organization of the enemy's army, its strength and equipment, and the nature of the theatre of war, concerning which reason is our paramount guide—but also with a host of unknown or partially known quantities and qualities, the larger proportion of which are psychological in nature, and concerning which we must work by means of hypothesis.

I have already examined the value of hypothesis in chapter ii. If in the civil sciences it can help us, how much more so can it assist us in the science of war.

Some men are born with an all-illuminating imagination, but these men are few in number. The average man possesses little or no imagination; how then can he cultivate it? We cannot endow him with a natural faculty, if this is wanting, but we can supply him with a synthetic substitute, which will partially make good the deficiency. We can show him what history has to relate concerning various operations, situations, and things, If certain results have occurred again and again, and it is discovered that certain factors and circumstances have been common when these results were obtained, then we may infer the likelihood of similar factors and circumstances producing like results. The man of imagination would see the results spontaneously, for as I have said, his imagination would focus his powers of reason and lead him directly to this deduction.

Take another case. A little imagination will lead us to realize the difference between our mentality and that of a Frenchman or a

German ; and once we have realized this difference, we can instantaneously assume the mental attitude of a Frenchman or a German, and see things as they would see them : this is a most important factor in war, this stepping, not into our adversaries' or friends' shoes, but into their minds. Few men, however, can do this, but once again a careful study of national characteristics will enable them approximately to obtain a foreign point of view, and to understand the psychology of their friends and foes. If a general knows that the racial characteristics of his enemy are *a*, *b*, and *c*, and the individual characteristics of the opposing general *x*, *y*, and *z*, then he will be able to act accordingly. This knowledge gives him an immense advantage. If besides this knowledge, he possesses so acute an imagination that he is able to sense the moral, rather than mental, worth of his antagonist in his actions, then his advantage is immeasurably increased. He, in fact, possesses what is called genius, a quality I will examine a little later on in this chapter.

3. The Element of Will

In the second chapter of this book I stated that, if thoughts are fixed in one direction by a conscious impulse, the result is will. Will is, so to speak, the gravity of the mind,[1] it is the motive force which attempts to accomplish reason by cause and effect. Thus, to make a comparison : a stone thrown up into the air eventually gravitates towards the centre of the earth, but only reaches the surface, since the force of gravity is not equal to the resistance the earth offers to its progress. If we could sufficiently reduce this resistance, or increase the force of gravity, the stone would be pulled through the earth and eventually reach the centre. As the aim of gravity is to bring the stone to rest at the centre of the earth, where all activity ceases, so in war the aim of a commander's will is to bring his enemy to rest ; in fact, to deprive him of all power of movement. To do so he must either reduce the resistance the enemy is offering to his will, or increase the powers expressing his will to so high a degree that his own will can move as gravity moves the stone along the shortest path between his reason and his goal. In the first case, he must compel the enemy to distribute or disperse his resistance, and, in the second, he must concentrate his force, his will, and its means of expression ; and the more he can force the enemy

[1] " Will is not an entirely unknown quantity ; it indicates what it will be to-morrow by what it is to-day . . . each of the two opponents can . . . form an opinion of the other, in a great measure, from what he is and what he does," instead of what he should be and should do. *On War*, Clausewitz, vol. i., pp. 7, 8.

to disperse his strength, and the more he can concentrate his own, the more direct will cause, if it be well founded on reason, produce the required effect.

Though the desired aim in war is to impose one's own will on the enemy, the two wills in conflict are surrounded by a host of other forces. Thus, each will depend on the reason of the action contemplated; each on how far this reason is free from error. Again the will of each commander must find expression through the will, individual and collective, of his men, and, in turn, their will depends on how far they can subordinate it to his, and how far their means of expressing it are or are not superior to the enemy's.

It is easy enough to say that the aim of war is the imposition of one will on another; but for a moment examine this statement and it will be seen how complex it really is.

First, each of the opposing wills is attempting to express a reason in order to gain an end. Which reason is the soundest; which brain has evolved the better plan of action? Which side has foreseen how its plan will shape itself, and which side is prepared to modify its plan without abandoning its motive?

Secondly, which side has more effectively attuned the wills of its men to the will of their commander. Which side possesses the highest self-sacrifice, the staunchest discipline, the firmest loyalty and closest comradeship? Then, when the will of the commander can no longer direct, which side will substitute a collective impulse for his individual impulse, and control the course of action as if their commander were standing behind them personally directing events? As an architect plans a house and as the masons build it, so must the plan of the commander be executed by his men in detail, whether he be near them or far away. Here again it is the plan which is the guiding and directing force, and its execution depends on skill and will to carry it out.

Thirdly, will demands means of expression. Are our means superior to those of the enemy? Skill is not sufficient; for deprive the skilful worker of his tools and his talent and ability are at a discount. If he feels that he is out-tooled and cannot move as the enemy moves, hit as the enemy hits, and protect himself as the enemy protects himself, his *moral* will fall, and, as it falls, so will fear jostle aside his endurance, obliterate or unhinge his will, and cut it off from that essential co-operation with the will of his commander, and so reduce a rational plan to an irrational struggle.

The imposition of our will on the enemy may be the whole aim of war, but will is an element attracted and repelled by the

other elements ; consequently we must understand what attracts it and what repels it, what accelerates and retards its activities, for not until we understand these things shall we know how to impose our will and how to prevent the enemy imposing his will on us. The imposition of will is the statement of a fact ; how to impose it is, to the normal man, a lifelong study of the elements of war and of their relationships.

4. The Influence of Genius

If we now turn to the history of war we shall soon discover that, in every period in which the art of war has progressed rapidly, the cause of this progress is the mind of some one man —an Alexander, a Hannibal, a Gustavus, or a Napoleon. To us these great captains appear to possess a natural gift for doing what is right and shunning what is wrong, and this gift is called genius.

Genius is one of those apparently inexplicable powers which differentiates the truly great man from the normal. It is not an instinct, for otherwise it would be common property ; it is not reason, as we usually understand it ; but, as it accomplishes in an incredibly short time a purpose which the faculty of reason would attain by a slow and no more certain progress, it, I think, may be considered as the highest dimension of this faculty. Whilst the mass of mankind shows little reasoning-power and relies on imitation—the crowd instinct—the man of genius transcends mere copying ; he refuses to swim with the stream ; he strikes out in a direction of his own ; and, what appears almost a miracle to the crowd, he frequently succeeds in diverting the stream from its course by compelling it to swirl forward in his own direction.

The military genius[1] is he who can produce original combinations out of the forces of war ; he is the man who can take all these forces and so attune them to the conditions which confront him that he can produce startling and, frequently, incomprehensible results. As an animal cannot explain the instincts which control it, neither can a man of genius explain the powers which control him. He acts on the spur of the moment, and he acts

[1] Lloyd says of the military genius : " Great geniuses have a sort of intuitive knowledge ; they see at once the causes, and its effect, with the different combinations, which unite them : they do not proceed by common rules, successively from one idea to another, by slow and languid steps, no : the *Whole*, with all its circumstances and various combinations, is like a picture, all together present to their mind ; these want no geometry : but an age produces few of this kind of men : and in the common run of generals, geometry, and experience, will help them to avoid gross errors " (*History of the Late War in Germany* (1766), Preface to vol. i., p. 19).

rightly, because this power is in control. That some explanation exists cannot be doubted, but so far science has not revealed it, though the psychologist is working towards its fringe.

When we look over the history of war we see no steady growth; in place we see revolutions in the art, and fallow periods. These revolutions are rapid and short, for they invariably coincide with the life of some genius. In the art of war Alexander accomplished in twelve years more than had been accomplished in the twelve thousand years which preceded him. His work was not all his own. He borrowed from his father, from Xenophon, from Cyrus, and others; but his genius compelled him to borrow what was right, and it repelled him from copying what was futile.

How is it that such geniuses flame over the horizon of war like shooting stars, scintillate for a little, and are gone, and fallowness so frequently follows in their path? One reason is that genius is a rare quality of mind, and it is unusual that one great man is followed by an equal, and another is that, until we possess a true science of war we have no means of calculating the results of genius. An Alexander comes, he conquers, and he goes, and, though thousands have watched and followed him, to them his genius remains a mystery. The man is venerated, but his method vanishes, not because it is forgotten, but because it was *never* understood.

If military genius possesses the power of producing original combinations from the forces of war, genius must consequently be the mainspring of strategy, which is largely the science of forces. Inwardly its work is founded on originality; outwardly it manifests in surprise. The great genius surges through difficulties immune, because he sees—foresees—the end, and understands the means. It is his mind which tramples down his enemies, though seemingly the weapons of his men accomplish this end. If *moral* is to the physical as three to one, then genius is to the normal as thirty to one. True, a man of genius may be overwhelmed—some have been—but, to appraise such a man, his worth must be judged not so much by the successes he has gained as by the art he has created. For it is what is endurable in the soldier and his art which constitutes the Golden Fleece of our quest and the reward of our studies.

The first master of the art of war is experience, the second is reason, and the third, and greatest, is genius. Experience can be bought at its price; reason can be obtained by study and by reflection; but genius would appear to be God's gift. In other words, if we cannot understand cause and effect, we must sense their relationships, and so add something to our stock

of knowledge. Again, if we can reason out cause and effect we discover their relationships without loss of energy; but it would appear that what the man of genius does is to imagine automatically, and so produce original relationships which, metaphorically, are born patented, since others can seldom copy them.

If I may hazard to set down the qualifications of the great captain, then I should say that they are:

(i.) Imagination operating through reason.
(ii.) Reason operating through audacity.
(iii.) And audacity operating through rapidity of movement.

The first creates unsuspected forms of thought; the second establishes original forms of action; and the third impels the human means at the disposal of the commander to accomplish his purpose with the force and rapidity of a thunderbolt. From the mind, through the soul, we thus gain our ends by means of the body.

5. The Vehicle of Genius

As genius is a personal gift, so is imitation a collective instinct. One man possessed by genius may alter the course of history, in fact, such a man has always altered the course of history, when alteration has been rapid. Three men of genius, working as a committee, could not do this, and still less so a crowd of normal men.

Whether genius can actually be cultivated or not, I cannot say. I have suggested that a synthetic genius[1] can be cultivated, but a more important question is: Can we train our minds to recognize genius? I believe we can; if I am right, then when a genius appears we shall not impede him, for, if we can recognize him, we shall be able to assist him. Here our predominant difficulty is the spirit of the herd, which in these democratic times has been deified and raised to Olympian heights. As long as the herd-spirit controls a nation, men of genius may be born, but circumstances will prevent them spreading their wings. Only picture to ourselves a supreme financial genius entering the department of the Treasury! What could he do? He could do no more than George Stephenson could have done had he suddenly materialized in the camp of Boadicea. Genius, for its expression, demands, therefore, conditions in which it can express itself; this is what we must realize, and especially so

[1] Synthetic genius attains its end by cultivating aptitude in the correct application of the principles of war.

when we deal with war. We, as pioneers, must blaze the trail for genius; we must cease relying on traditions which in their day may have been excellent, but which in our day are threadbare.

What does this preparation demand? It demands clear thinking.

Since we cannot breed men of genius at will, this is then our problem: to think clearly; and what is the first step in its solution? To cease imitating. I have already pointed out the short-sightedness which characterized the period immediately preceding the outbreak of the Great War of 1914–18. In spite of this war, this period is not dead; in fact, it is very much alive, for whenever anything new is suggested we are urged to proceed with caution, ever forgetting that fear is failure and the forerunner of failure.

Caution may be an excellent precept, but none the less so is audacity, yet what is still more excellent is to think clearly, for clear thought leads to true thought, and, once a truth is grasped, the sooner we make use of it the better; for, if it be a truth, then as long as we do not full-heartedly accept it and mould our opinions and actions upon it we shall simply be maintaining and fostering a lie.

Why is caution always on our lips? Because we are not sure of ourselves, because we openly, or hiddenly, acknowledge our ignorance. As long as we are ignorant this is excellent, but do not let us make caution an excuse for remaining ignorant—do not let us canonize it. It is very easy to do so, and sometimes, to the mentally inert, it is very comforting to have a saint. Instead, let us say to ourselves: I am proceeding cautiously because I am ignorant; I must overcome my ignorance so as to step out audaciously. Clear and valiant thought—this is our sword.

Another frequent excuse for remaining indolent is the expense entailed in effecting a change in armament, or equipment, etc., yet it cannot be doubted that an obsolete army is the most expensive organization a nation can maintain, since it cannot fulfil the purpose for which it is established, namely, to secure the nation against war, or, when war comes, to terminate it rapidly. Sometimes this excuse is openly based on indolence, but more frequently because anything new is apt to upset vested interests. Traditionalism is a herd-force, and vested interests are armoured with traditions; so much so is this the case that mobs and mob-rule, throughout history, have remained psychologically unchanged.

Change, to be really productive, must be systematic and objective. It must be attuned to needs and not to fancies. It

is not sufficient to invent something novel, but something useful, and to do so we must fix the end before we change the means.

To take weapons as an illustration, in the past and to-day how do new weapons appear? Some enthusiast, frequently a civilian, sees a tactical defect, and introduces a new arm to make it good. The soldier quite possibly has not seen the defect, yet the arm is adopted as it may prove useful. It is glued on to the existing organization, and at the first shock it chips off. It is then pronounced useless, when, in fact, it might, if correctly used, prove of the greatest service.

In an army every material novelty demands first a clear, tactical appreciation of its use, and secondly a suitable organization, based on this appreciation, wherein to express its powers. Improvement in means should be based on clear-cut ideas; in fact, tactical demand should precede technical supply. I want a weapon of such a nature because I want to carry out tactics of such a nature, and not, Here is a new weapon; what are its tactics? should be the guiding rule in change.

From these few examples I think the student will see that we cannot sit down and wait for genius to rectify error. In all probability, in no period in history have men of military genius been wanting. What is scarcer than genius is opportunity propitious to its manifestation. In the past, opportunity has frequently been created by some great turmoil, such as a revolution, which, pulverizing traditionalism, has liberated the man. This is a sorry method; surely we can do better than this; surely we can abandon obsolesence without disintegrating a whole nation; surely, knowing as we do that we possess a faculty called reason, we can prepare the way. How to think rationally, this is the problem I have set myself to solve, and not how to endow the student with genius, for, in my opinion, reason is the first element of war, from which the directing force of all the other elements emanates.

6. Military Thought

The process of rational thought is the same for all men, and this process I have already explained in my lecture on the method of science. The process must be applied to some definite end, and our end is war.

Though the art of thinking is a very ancient art, and though logic has controlled philosophy and science for hundreds of years, logical thought has not been applied to war, except by a very few; because logical thinking demands the arrangement and

organization of thought according to the values of the subjects of thought and the objects these subjects represent, and, so far, method has been wanting.

In war—perhaps more so than in most other activities—a good reason is not necessarily a true reason. Knowledge and understanding possess immense force, yet unless they are correlated by wisdom their very power may prove a danger. A wise man is not only a man who knows, but a man who sees and knows; he is, in fact, a man of common sense, a man who possesses the power of adapting thought and action to circumstances, and to do so he must understand the circumstances.

A wise soldier is like a wise surgeon; he is faced by an operation, but, possessing skill and knowing intimately the anatomy of war, he can operate judiciously.

And what is the anatomy of war? It is much the same as the anatomy of the human body, since armies are human organizations. In war, armies face armies; they possess structure, control, and maintenance; their forces are developed in three spheres—the mental, moral, and physical—and are expended in varying circumstances. Here we have three things we must consider—organization, force, and circumstances—and it is wisdom which sets these three in harmony.

Knowing much, and seeing the changing conditions which surround him, the skilled soldier will always be seeking for new ideas whereon to mould his plan. An idea strikes him; it surges out of his memory, awakened by some sudden event. His first step is not to apply it, but to mould it; and it is this process of shaping ideas into practical plans which is so difficult, unless the soldier possesses genius or method.

The first thing to remember is that a new idea should not necessitate a sudden change in structure. Structure can of course be changed, but only slowly, and, in war, if it be rapidly changed, the control and maintenance of an army may be detrimentally affected. Generally speaking, novelties must be limited to work within the existing organization; in other words, a brilliant idea will prove even dangerous unless it can be applied without necessitating a rapid and radical structural change.

Remember also that in battle, and battles are the tests of military structure, the object of each side is not to kill for the sake of killing, but for the sake of disorganizing, for military strength does not reside in individuals, but in the co-operation of individuals and masses. Co-operation depends on control; and the endurance of force depends on maintenance. Every plan must have a threefold base; it must permit of the existing structure

of an army remaining unaltered, or as unaltered as possible; it must permit of the existing system of control working without friction ; and it must permit of the administrative units carrying out their duties without let or hindrance.

If the student agrees with what I have now said, before he attempts to transmute an idea into a plan of action, he will carefully consider the influence of his idea on the general organization of the force he intends to apply. He will consider how it will affect tactical organization, the organization of command, and the organization of administration, and, having decided on the answer, then he can consider the second point.

Organization is the vehicle of force ; and force is threefold in nature ; it is mental, moral, and physical. How will the idea affect these spheres of force? This is primarily a question of force and its expenditure. Thus, if the idea is complex, and does not permit of it being readily grasped by others, mistakes are likely to occur ; and if its aim is beyond the moral and physical powers of the troops, should it be pushed beyond the limit of their endurance, though organization may for the time being be maintained, ultimately demoralization will set in, and a demoralized organization is one which has become so fragile that a slight blow, especially a surprise blow, will instantaneously shatter it to pieces.

The third point is that the idea must not only harmonize with existing conditions, but with their probable fluctuations. This is a most difficult factor to gauge, and it is here that the man of genius transcends the normal commander. Failing genius, it is by imagination that we can overcome this difficulty. Every action will produce a definite effect ; and if we are not endowed with imagination, then we must fall back on reflection, and work out mathematically the chain of cause and effect, not only from our own standpoint, but from that of the enemy as well. Thus : my idea is A, and existing conditions are B ; my first move is X ; what will the enemy's be? It may be Y or Z. How will Y or Z affect B? Y may not alter B, but Z may produce a new series of onditions—B + C. What, now, will be the influence of B + C on A—and so on?

We first look at the idea or plan from our own point of view, and then from the enemy's, and discover, not only what these two points of view are, but how they will influence existing conditions, and how these conditions will change.

These, in brief, are, I think, the most important points in applying military thought to a problem : maintain organization, work within the limitations of the force at our disposal, and foresee the changes in conditions.

7. Grand Strategy

In chapter v. I outlined the machinery of control, and in this present chapter I have examined the force which this machine should liberate. I have explained how the brain in part works automatically and part consciously; and it is the same in war, for what is required is that the duties of peace, which must continue, should work automatically, so that the government may concentrate the whole of its attention on the war and render every fact concerning it a conscious and a considered fact.

In war, as I have explained, a government works directly through its own political weapons, and indirectly through its military instrument. Thus in war a government is concerned with three great duties; namely, to maintain the domestic machinery of the nation; to set in motion the political machinery; and to control the military machinery. The first is the base of the second, and the second of the third, and all three must be correlated.

I have shown that economy demands that the fighting forces should be directed by a generalissimo, and by a generalissimo I do not mean a *fighting* commander-in-chief, but a thinking man, assisted by a highly trained staff drawn from the three Services. A man who can free the fighting commanders—whether operating singly or unitedly under one chief—of the formulation of policy, and of direct political interference. In most modern wars, and conspicuously so in the Great War of 1914–18, each commander-in-chief had to face two fronts—the enemy and his government; the result was that pressure in rear hindered command in front. Throughout the last war the appointment of commander-in-chief was purely nominal; no such officer really planned, really commanded, and really fought, for command was by delegation. It was a war which Gustavus, Frederick, or Napoleon could not have dreamt of.

What is now required is a system which will liberate the fighting head; and, as democratic nations will not tolerate the appointment of a military dictator, unless they are on the point of being deafened by their death-rattle, the only remedy would appear to be to establish a military buffer between the government and its instrument.

The generalissimo should be, therefore, the thinking, co-ordinating head, who can advise his government on the formulation of the grand strategy of the war, which, in the main, is the correlation between national power and military effort; for grand strategy includes all the forces which are to be expended

in the struggle. "No war," writes Clausewitz, "is commenced, or, at least, no war should be commenced, if people acted wisely, without first seeking a reply to the question, what is to be attained by and in the same? The first is the final object; the other is the intermediate aim. By this chief consideration the whole course of the war is prescribed, the extent of the means and the measure of energy are determined; its influence manifests itself down to the smallest organ of action."[1]

This is grand strategy. How, then, can a commander-in-chief (unless he be a dictator) concentrate the whole of his mental energy on the prosecution of the war unless he is freed from political interference. If, on every occasion upon which he wishes to do anything, he is compelled to refer the question to a many-headed cabinet, the members of which possess no strategical knowledge, opportunity will vanish long before decision is reached. If, on the other hand, he is able to refer it to a generalissimo, whose duty it is to keep in the closest touch with political affairs, he will be told forthwith whether his actions coincide or run counter to policy.

I have in a former chapter examined the forces which build up national power, and in another, the object of war in its threefold order. It is these that the grand strategist has to correlate with the conditions of war actual and problematical, so that the force of the instrument of war may be expended at the highest profit. It is for this reason that in the last chapter I have suggested that his department should be organized to deal with economic and ethical questions as well as defence. His office should work in closest co-operation with the national council, so that between these two the political mind of the nation will not only be equilibrated by this dual pressure, but brought into the closest touch with the realities of war and the realities of national life as influenced by war. Without some such mental pressure policy must remain inarticulate; the politician, on the one side, fearing public opinion, and, on the other, distrusting the will of the army. Without stability of policy there can be no stability of plan, and without stability of plan there can be no economical direction of force.

Whilst in the past, when nations were more self-contained and less interdependent, the grand strategist was, normally, a soldier who at times controlled both the land and the sea-forces, and who was endowed with political instinct; for example, such men as Cromwell, Marlborough, and Napoleon; to-day the grand strategist must be something more than these great men. He must be also a psychologist and an economist; and, as we

[1] *On War*, vol. iii., p. 79.

can never guarantee that when war is declared we shall find a genius in control, we must create so perfect a piece of grand-strategical machinery that a man of normal intelligence and high training will be able to carry out the duties of grand strategy with effect. Failing genius, it is the machine which will produce the man, not a fighting soldier, sailor, or airman, or these three combined in one, not a fighting head, but a thinking head, a centre of thought—a war brain, which will direct the forces, but not the activities of the instrument.

8. Grand Tactics

The correlation of the forces of war is the main duty of the grand strategist, and, once these forces have been correlated and adjusted to the political object, the next step is to endow them with structure so that they can be operated. This is the duty of the grand tactician; he takes over the forces as they are distributed and arranges them according to the resistance they are likely to meet. This arrangement constitutes the plan of the war, or campaign, and, if the spirit of the plan is the political object, then the heart of the plan is the military object. This object I will now consider.

In war the object of military action is to compel the enemy to accept the policy in dispute; it accomplishes this end by disarming the enemy and occupying his country, which renders it possible for the government to impose its will on the hostile nation with honour and economy. Or as Clausewitz says: "There are three principal objects in carrying on war:

"(*a*) To conquer and destroy the enemy's armed forces.
"(*b*) To get possession of the material elements of aggression, and of the other sources of existence of the hostile army.
"(*c*) To gain public opinion."

The first, he says, is gained by defeating the enemy's army; the second by occupying those points at which resources are concentrated; and the third by great victories and the possession of the enemy's capital.[1]

These three objects (though to-day the means of attaining them are somewhat different than they were a century ago) agree very closely with the national, ethical, and economic objects I examined in the last chapter.

As grand strategy secures the political object by directing all war-like resources—moral, physical and material—towards the

[1] *On War*, vol. iii., pp. 209, 210.

winning of a war, grand tactics secures military action by converging all means of waging war towards gaining a decision.

The grand-tactical object is the destruction of the enemy's plan, which destruction will so reduce his will to win that he must either surrender or accept terms of peace. The strength of this plan is, however, divided between the hostile army, government, and people, all of which should, if possible, be attacked directly or indirectly by force of arms and by political action.

When Clausewitz wrote his famous book he only considered the operations of armies which by the nature of their structure are compelled to fight in two dimensions. In his day, and until quite recently, it seldom was possible for one nation to impose its will on another without first destroying the enemy's army, or by gaining so decisive a victory over it that the national will was left unprotected; consequently Clausewitz lays down that: "The overthrow of the enemy is the aim in war; destruction of the hostile forces, the means both in attack and defence."[1] Nevertheless, he realized quite clearly that this overthrow, in its turn, was only a means of enforcing policy; yet most of his followers have glossed over this important point, until in the political and military minds destruction has ceased to be a means and has become an end in itself.

Though Clausewitz saw, I think, clearly the political side of this question, on the military side he seems to have lost his way, and it is for this reason, I imagine, that his students have done likewise.

At the beginning of his work, in book I, he appreciates the fact that "in war it is only by means of a great directing spirit that we can expect the full power latent in the troops to be developed."[2] And a little later on, of the commander, he says: "Ordinary men who follow the suggestion of others become, therefore, generally undecided on the spot; they think that they have found circumstances different from what they had expected, and this view gains strength by their again yielding to the suggestions of others. But even the man who has made his own plans, when he comes to see things with his own eyes, will often think he has done wrong . . . his first conviction will in the end prove true, when the foreground scenery which fate has pushed on to the stage of war, with its accompaniments of terrific objects is drawn aside and the horizon extended. This is one of the great chasms which separate *conception* from *execution*."[3] In fact, this chasm holds, or should hold, the mental endurance of the commander.

In another place Clausewitz points out that the enemy's

[1] *Ibid.*, vol. iii., p. 6. [2] *Ibid.*, vol. i., p. 74. [3] *Ibid.*, vol. i., p. 77.

resistance acts directly upon the combatants, and that through them it reacts upon their commander. "As soon as difficulties arise," he writes, "—and that must always happen when great results are at stake—then things no longer move on of themselves like a well-oiled machine, the machine itself then begins to offer resistance, and to overcome this the commander must have a great force of will. . . . As the forces in one individual after another become prostrated, and can no longer be excited and supported by an effort of his own will, the whole inertia of the war gradually rests its weight on the will of the commander: by the spark in his breast, by the light of his spirit, the spark of purpose, the light of hope, must be kindled afresh in others: in so far only as he is equal to this he stands above the masses and continues to be their master; whenever that influence ceases, and his own spirit is no longer strong enough to revive the spirit of all others, the masses, drawing him down with them, sink into the lower region of animal nature, which shrinks from danger and knows not shame."[1]

The importance of the commander as the vital, mental, and moral centre of his army is wonderfully accentuated by Clausewitz, yet, as he proceeds in the development of his philosophy, he loses sight of this point. In his fifth book he writes: ". . . except the talent of the Commander-in-chief—a thing entirely dependent on chance. . . . The nearer we approach to a state of equality in all these things the more decisive becomes the relation in point of numbers."[2]

Brute force now to a large extent replaces the will of the commander as the vital factor in war, and out of this change, Clausewitz, in part—and I think the greater part—misjudging the art of Napoleon, elaborates his theory of "Absolute Warfare,"[3] which, though to him is "a struggle for life or death," to his followers suggests the idea of "destruction."

I have gone to this length in the examination of this question because our present-day theory of war is based on Clausewitz, possibly on a misinterpretation of Clausewitz, who, I consider, misunderstood Napoleon. To the masses of fighting men, in war, the object of an army is to destroy an army; of a fleet, to destroy a fleet; and of an air force, to destroy an air force; in fact, to these folk, the object in grand tactics is the maximum destruction at the minimum loss, or, more frequently still, at any cost.

[1] *Ibid.*, vol. i., pp. 54, 55, 57. [2] *Ibid.*, vol. ii., p. 6.
[3] *Ibid.* See vol. ii., p. 358 and vol. iii., pp. 79–83. See also my book *The Reformation of War*, chaps. iv. and v.; and Captain B. H. Liddell Hart's analysis of "The Napoleonic Fallacy," in *The Empire Review*, May 1925.

Though in minor tactics this is partially true, in grand tactics I maintain that it is an error of the first magnitude. The decisive point is not the body of the hostile army, just as politically the decisive point is not the body of the hostile nation. Politically, the decisive point is the will of the hostile nation, and grand tactically it is the will of the enemy's commander. To paralyse this will we must attack his plan, which expresses his will—his reasoned decisions. Frequently, to do so, we must attack his troops, but not always; for he can be attacked in rear by the will of his own people and his own politicians, also he can be out-manœuvred and surprised. The grand tactician does not think of physical destruction, but of mental destruction, and, when the mind of the enemy's command can only be attacked through the bodies of his men, then from grand tactics we descend to minor tactics, which, though related, is a different expression of force.

We see, therefore, that grand tactics is the battle between two plans energized by two wills, and not merely the struggle between two or more military forces. Consequently, to be a grand tactician, it is essential to understand the purpose of each part of the military instrument.

9. The Purposes of the Fighting Forces

Man is a terrestrial animal, and the only certain method of compelling an enemy to accept the policy in dispute is to occupy his country. Without such occupation it is not possible to guarantee adherence to terms of surrender. As there can be little dispute as to this, I will lay it down as an axiom that the peaceful occupation of the enemy's country is a sure guarantee of success in war; and by peaceful I mean that all armed resistance throughout the enemy's country has ceased

This occupation demands an army, or a police force, that is some form of land-force, which can enforce and maintain tranquillity amongst the enemy's people. If this army is separated from its own country by sea, then to effect this occupation and to maintain it, command of the sea communications leading to the enemy's country is an essential. This in its turn demands a fleet.

From this may be deduced the following: that whilst the object of the army is to create a situation which will compel the enemy to accept the policy in dispute, this situation is only definitely established when the enemy's country has been occupied and all armed resistance has ceased. In other words, the purpose of an army—that is, its *raison d'être*—is to gain command of the

enemy's land. Occupation is, in fact, the attainment of this object, for once the enemy's resistance has been overcome the ultimate military objective is won.

As I shall deal with military objectives in another chapter, I will turn to the purposes of a fleet.

It has two:

(i.) To protect the transportation of armies, and to compel the enemy to disperse his main army by landing or threatening to land troops.

(ii.) To protect the transportation of supplies, and to impede or completely prevent supplies being shipped to the enemy's country.

The first is the military purpose of a fleet, and the second its economic purpose, which together may be expressed in one term —command of the sea, or the power of controlling movement over the waters in order to maintain and secure policy.

As the ultimate aim of a fleet is to gain or maintain command of the sea—that is, liberty of movement and action on the water —consequently its object is to clear the sea of all hostile ships, either by sinking or blockading them, and until this objective has been gained the purposes of a fleet cannot without grave risk be accomplished.

Thus far the problem seems clear enough: occupation of the enemy's country is essential; and his resistance may be broken by military pressure, which is physical, or by naval pressure, which is economic,[1] or by both in co-operation.

In recent years this simple problem has been rendered complex by the discovery of flight, and one of the supreme war questions which confront all nations to-day is: how will air-force influence this problem?

Armies and fleets are instruments of political force, which, in order to render this force operative, have, normally, to destroy the enemy's military and naval resistance. An air force can act otherwise; it can, in certain cases, ignore armies and fleets,

[1] The effectiveness of the navy as an economic weapon is little realized by the general public. The following, told me by a naval friend, quoting the highest authorities, is of interest: "Up till the end of 1918 it is calculated that 763,000 German civilians *died* as a result of the 'blockade.' The spread of tuberculosis has undone the work of many years before the war, and a large percentage of the children of Germany are more or less affected with rickets. The new generation will be permanently injured, both mentally and physically. The result of the 'blockade' in terms of human misery was unutterably dreadful, but as a measure of war it can only be described as a wonderful success." It appears somewhat cynical that the economic blockade should be the means whereby the League of Nations proposes to enforce its will.

and directly attack the will of the hostile nation. Possibly, in the future, aircraft may become so powerful that surface fleets and armies will be unable to protect themselves against them. In the first case, the older forces are ignored, and in the second they are destroyed, and if the terror wrought by aircraft is so great as utterly to paralyse a nation, occupation may be effected by merely walking over the frontiers.

I do not say that this is an impossible eventuality, but, remembering the limitations which landing-grounds and gravity impose on aircraft, I am of opinion that, until a new motive power is discovered and aircraft are radically changed, the true purposes of an air force are :

(i.) To provide the army and navy with information and local protection.
(ii.) To attack the will of the hostile people.

The first is the military and naval purpose, and the second the moral, or psychological, purpose, both of which are gained through command of the air.

As all three Services—army, navy and air force—are based on the land, the army, in its turn, must co-operate with the navy and air force by protecting these bases—naval ports, landing grounds, etc., as well as its own. We thus obtain an intimate relationship between the activities of the three forces, the correlationship of which culminates in occupation. The army protects the naval and air bases and exerts physical pressure ; the navy secures the sea communications of the army and air force and exerts economic pressure ; and the air force provides the army and navy with information and local protection and exerts moral pressure. As moral and economic pressure take effect, the enemy's resistance is reduced, and in inverse proportion is our physical pressure increased and occupation effected. The control of these forces through their correlation is the domain of grand strategy, and the structure of the plan of expenditure and the method of maintaining them of grand tactics and of what I will call grand administration. These are the three closely related divisions of the mental sphere of war which forms the foundation of all military action.

10. The Study of the Mental Sphere

At the end of the last chapter I said that if we can discover the nature of the mentality of the enemy's command, then, if we work scientifically, we shall be able to discover what to expect.

The mind of man, as we know, is largely controlled by reason, and from his brain originate all his activities. In an army it is much the same. What is the governing reason of any action? We can discover this by waiting for cause and effect, and, though this method has frequently to be resorted to, it is costly, yet, when once we have ascertained the relationship between cause and effect, we shall have discovered the reason in question. By this process, by degrees we can diagnose the mentality of the enemy's command.

Another process is to examine the structure of the organ of command. What is the nature of its machinery? What can it make? Does the enemy possess an organization which can create grand strategy? If not, then we shall know that one weak link in his harness is the link which connects politician to soldier, and, consequently, by striking at the politician, either directly or through the will of the hostile nation, we may cripple the enemy's fighting forces.

What is the nature of his grand-tactical machine? Does it permit of an output of combined force? Does it link Service to Service, and weld all three Services into one force? If not, what kind of plan can it create? If we can only answer these questions we shall have gone a long way toward formulating our own plan and of discovering the enemy's weak points, his weak mental points which eventually will reveal themselves as weak physical points and weak moral points—points we should attack, and if we can foresee them, then we can plan to attack them.

We can apply this system to the study of history. For instance, we can take a campaign and link together its operations—marches, battles, etc.—and so produce a mosaic. For each operation we can by degrees deduce a reason, and, having compared these reasons, next we should turn to the brain which has conceived them and the mental machinery which elaborated them. Which is at fault? Or to which is success due? Was genius in command? Or was the organization of command defective?

Lastly, when we have made up our minds where the fault lies, we should look and see if, after the war was concluded, the enemy possessed the ability to discover it and the courage to remedy it. If not, then we can surmise that in the next war he will commit his mistakes over again—that he is, in fact, a congenital fool.

Thus, by a systematic examination of the past, can we remedy the present and prepare for the future, building up an instrument the powers of which can be expressed either by genius or normality.

CHAPTER VII

THE MORAL SPHERE OF WAR

Who best can suffer, best can do.—MILTON.

A man's acts are slavish, not true but specious; his very thoughts are false; he thinks too as a slave and coward, till he have got fear under his feet.—T. CARLYLE.

1. THE MORAL ASPECT OF WAR

CLAUSEWITZ in the third chapter of his third book writes:

> The moral forces are amongst the most important subjects in war. They form the spirit which permeates the whole being of war. These forces fasten themselves soonest and with the greatest affinity on to the will which puts in motion and guides the whole mass of powers, uniting with it, as it were, in one stream, because this is a moral force itself.[1]

It is to the great credit of Clausewitz as a military thinker that he saw the importance of the moral sphere in war. In the eighteenth century it had been grossly neglected; then came the French Revolution, which, in the form of a moral explosion, liberated the pent-up instincts in humankind, and shattered or shook every existing system of thought, including the contemporary theory of war based on Frederick's idea that the soldier is but a mechanical instrument.

Napoleon showed that he was nothing of the kind, for his system of command was not so much based on discipline as on "moral touch," or that contact between the heart of the leader and the soul of the led which makes of the soldier an animated instrument and a willing and eager partner. It was this partnership which had so long been deficient in war, and which Napoleon revealed and which Clausewitz enshrined in his book, and which many of his followers, as so frequently is the case, misinterpreted, until the moral became the only side of war.

War, to Clausewitz, "is an act of violence intended to compel our opponent to fulfil our will."[2] Physical force is the means,

[1] *On War*, vol. i., p. 177. [2] *Ibid.*, vol. i., p. 2.

and mental force is the impulse, for to Clausewitz "the compulsory submission of the enemy to our will is the ultimate *object*," the immediate object being disarmament. Of the means —namely, the physical instrument—Clausewitz writes: "The Art of War has to deal with living and with moral forces. . . . Courage and self-reliance are, therefore, principles quite essential to war."[1] This is what Napoleon realized, and this is what Jackson had in view when he wrote: "Hence the difference between a mechanic and a man of genius entrusted with the command of an army. The one operates mechanically by the impulse of fear on the slavish passions of man; the other insensibly insinuates and incorporates himself with his soldiers, forming them into heroes; . . . hence the same instruments, independent of the mechanical mode of application, move forward to victory or recoil in defeat, according to the mode in which they are animated."[2]

It is this animation which so largely constitutes the art of war, and of which it is so difficult to write. It is not one soul lighting another—this is mere fanaticism—but rather one mind illuminating many minds, by one heart causing thousands to beat in rhythm, and in a rhythm which, like a musical instrument, accompanies the mind in control. It is a union between intelligence and heart; between the will of the general and the willingness of his men; that fusion of the mental and moral spheres.

This, indeed, is a tremendous subject, and one requiring the closest study, for, though *moral* is all-important in war, it is not a thing in itself, as it is so frequently considered to be, but a link between will and action; and it is thus that I intend to view it. First, I will examine this problem from its individual side. I will attempt to extract certain moral elements of war, and explain how these are controlled and directed by a general, and then, in the latter half of this chapter, I will examine it from its collective side—the moral aspect of crowds, of armies, and the psychology of war generally. Yet by means of the written word how little can really be explained.

2. The Three Governing Instincts

For a moment, to return to the last chapter, so that I may establish a link. We must realize that it is our reason which enables us to discover anything. Reason to man is what force is to the universe. All universal motions are changes in force and so are all human activities directly or indirectly influenced

[1] *Ibid.*, vol. i., p. 21. [2] *A Systematic View*, etc., p. 214.

by changes in reason. Therefore, if we look upon reason as the directing force in our lives we shall at once realize that, not only must the mental sphere in which it operates strongly influence the moral and physical spheres, but that, conversely, any change in the moral and physical spheres must influence our minds and, consequently, our reason. These influences may be beneficial or detrimental, and, accordingly, so will reason be attracted towards or repelled from truth and error.

The moral sphere is the domain of the soul, ego, or " heart "—there is no just name for this element—and this, I think, alone shows how complex this sphere is. Within it lie hidden the instincts of man, and of these the strongest in war is the instinct of self-preservation, which I will examine in the second half of this chapter.

In chapter iii., when considering " The Threefold Nature of Man," I said that reason was the faculty of thinking, and that " when thoughts are fixed in one direction by a conscious impulse the result is will." Instincts, as is generally known, lead to unconscious or subconscious impulses—impulses which are not controlled by reason, and which, unless they are brought under control, may at any moment be awakened by danger, which, if not controlled, will dissipate our will-power and overthrow our reason, leaving us at the mercy of a variety of forces—fear, rage, frenzy, panic, madness, etc.

The question now arises: How are we going to fortify our will-power, how are we going to protect it so that it can withstand the shattering blows of fear? To answer this question it will help us if, for a moment, we return to the scientific method of enquiry.

Let us first observe all the instincts in man and reflect upon their nature, more especially so from the point of view of war; then let us group them, and decide how we can make use of each group.

There are many ways we can arrange these instincts, and the one I intend to adopt, and which appears to me to be a common sense one, is to group them according to the activities of man's body, namely, stability, activity, and co-operation.

Naturally I cannot here examine this question in full, as it would demand a book of its own, but I intend to examine it sufficiently for the student to grasp what I mean.

Suppose, now, there was but one man in the world, and that this man wished to continue to live in the world, what would he have to do? He would have to protect himself and he would have to assert himself. He could not live by protective means only, such as by always avoiding danger, nor could he live by

assertive means only, such as would be begotten by a courage devoid of fear. In order that he may protect himself, nature has implanted in his soul the instinct of self-preservation, and, in order to assert himself, the instinct of self-assertion, and it is through the co-operation of these two that he lives ; and, be it noted, the first is the base of the second, for security is obviously the first requirement of self-assertion.

Suppose that this man be given a wife, and that his desire is, not only to live, but that she should live and that their children should live. Then we find, not only a co-operation between self-preservation and self-assertion within each individual, but between each individual, which results in a give and take. In order not only that the individual may live, but that the race may survive, Nature has implanted in man's heart yet a third instinct—the instinct of self-sacrifice. A woman will protect the life of her child even to the sacrifice of her own ; so in a lesser degree will man risk his life to protect his wife. These acts are not rational acts, but moral acts. As the great human trinity is man, woman, and child, so the great moral trinity is self-preservation, self-assertion, and self-sacrifice. All the instincts can be directly or indirectly classified under these three groups—the stable, active, and co-operative groups. Thus the instinct of hunger would fall under the first, of pugnacity under the second, and of love under the third. There are, of course, many other instincts ; in fact, I do not think that any psychologist would definitely like to say how many there are ; and, even if my threefold grouping is not absolutely correct, it possesses the value of simplicity, and, consequently, is a good hypothesis to work by.

If in the mental sphere, by a process of integration and disintegration of ideas, the scientific method enables us to arrive at the reasons for or against any suggested action, surely also in the moral sphere it will enable us to discover what is morally advantageous and disadvantageous to the control of the physical sphere of war and its elements. By the process of observation, reflection, and decision we can sort out three groups of instincts, namely, those which accentuate fear, accentuate courage, and accentuate comradeship. These three groups are essential to war. Do not let us for a moment suppose that, if we could eliminate the first group, we should fight the better for it. A man who possessed no sense of fear, no instinct of self-preservation, would fight like a frenzied maniac ; that is, he would never think of protecting himself, and, consequently, would run untold and inane risks, and die the death of a fool. Again, if we could eliminate fear altogether we should have no weapon to fight

with, for all physical weapons are made to instil fear. Without fear war would be a struggle of maniacs; without courage it would be a scramble of cunning cowards, of assassins who could only knife an enemy when his back is turned, and without comradeship it would be the brawl of a mob latent with panic. It is fear, courage, and comradeship which moralize war, not separately or individually, but collectively and unitedly.

Granted that these three elements are necessary to war and to scientific fighting, granted that we know their values and the value of their ingredients, then we can cultivate habits which will enable us to control, in some small way, our instincts, and which will enable us to balance and adapt them to our needs, and free our will to control our physical energy and all the activities dependent on it. Granted this freedom of will which, through comradeship, can control fear and courage, then by repetition and education we can cultivate in ourselves and our men those acquired movements which will transmute conscious associations into subconscious habits. This is, in fact, the aim of all military training.

3. The Relationship of Will and the Moral Elements

From this general aspect of the moral forces I will turn to the more purely military aspect, and establish a relationship between will, the final expression of the mind, and fear, courage, and *moral*, the three moral elements in war.

In peace-time, comparatively speaking, our minds are little affected by fear, but in war-time it is the reverse; consequently the direction of will-power becomes a far more difficult problem than the formulation of reasons which give will its force.

Just as a butterfly is related to a chrysalis, and the chrysalis to a caterpillar, so is will, as a physical act, related to will as a sentiment, and through sentiment back to will as a mental decision. I will now turn, therefore, from what may be called rational will and consider will as a potential rational element operating in the moral sphère, and attracted, repelled, or balanced by the elements of fear and of *moral*. Thus reason gives expression to will, will has to traverse the moral sphere before it can influence the physical, and during this journey, if reason is to rule, it should be the controller of the moral elements. To gain this control, fear must be balanced by *moral*, and, when this control is gained, not only does the soldier become a moral agent, but the will itself reverts to its rational position, and, the body being controlled by reason in its normal mental sense, it expresses the decision of the mind by a physical act of will.

Thus, if my intention to-day is to kill a certain man, and to-morrow I meet him, my will changes from a rational to a moral mood, and, once I have overcome such fear as his presence instils, the act of killing him expresses my original intention. To overcome my doubts, when he confronts me my *moral* must balance my fear, or, if I possess a low *moral*, I must rely on cunning; but of this quality I shall speak later on.

For a moment I will turn to the physical sphere, and here we are confronted by a simpler problem.

War presupposes changes in force, and particularly in physical energy. If two men wish to fight, they must expend muscular power in order to move, hit, and guard. In the first—the expenditure of force in approaching each other—*moral* must balance fear in order to allow the will to "enclutch" (to use a mechanical term) with muscle. To hit demands that *moral*, for the time being, must "demagnetize" the will from fear, and directly the blow has failed, and the hitter is placed at a disadvantage, fear must remagnetize the will so that it is able to direct muscle-power to expend itself protectively—namely, in guarding; that is, in warding off or avoiding a blow. Thus, by balancing fear and *moral* according to the circumstances in which muscle-power should be expended, the will maintains its freedom of action, and endows the muscles with freedom of movement, of which there are three moods:

(i.) Movement towards or away from the objective decided on by the reason.

(ii.) Offensive movements governed by a moralized will.

(iii.) Protective movements controlled by a will rendered prudent by fear.

When one party is at a great disadvantage, especially physically, brute force of necessity must be replaced by craft; the result is that *moral*, to a large extent, manifests as cunning, and the attack becomes a moral one—that is, an attack against the nerves rather than against the body of the enemy.

Of hunting, Jackson writes: "It prepares man for war by confirming courage or by sharpening address. If the object of the chase be the destruction of the ferocious and bold animals, the hunter insensibly acquires courage, intrepidity, and above all promptness of decision in the instant of danger. If the prey be timid and shy, he acquired address and management; for his faculties are sharpened, and his thinking powers exercised, in contriving the means of accomplishing his purpose."[1] So also in war it is the physically weaker side which exercises its

[1] *Ibid.*, p. 20.

thinking powers, whilst the stronger so frequently relies on brute force to accomplish its ends. It is, in fact, the old story of David and Goliath. Both were courageous men, but the first was the victor, for the *moral* which fortified him was intellectual.

I will now turn back to the moral side of war. In peace-time we have what is called civic control, which draws its force from peaceful morality. It is an acquired force based on certain primitive instincts. In its elementary form it is a conscious association, but in order to exert its full powers it must become

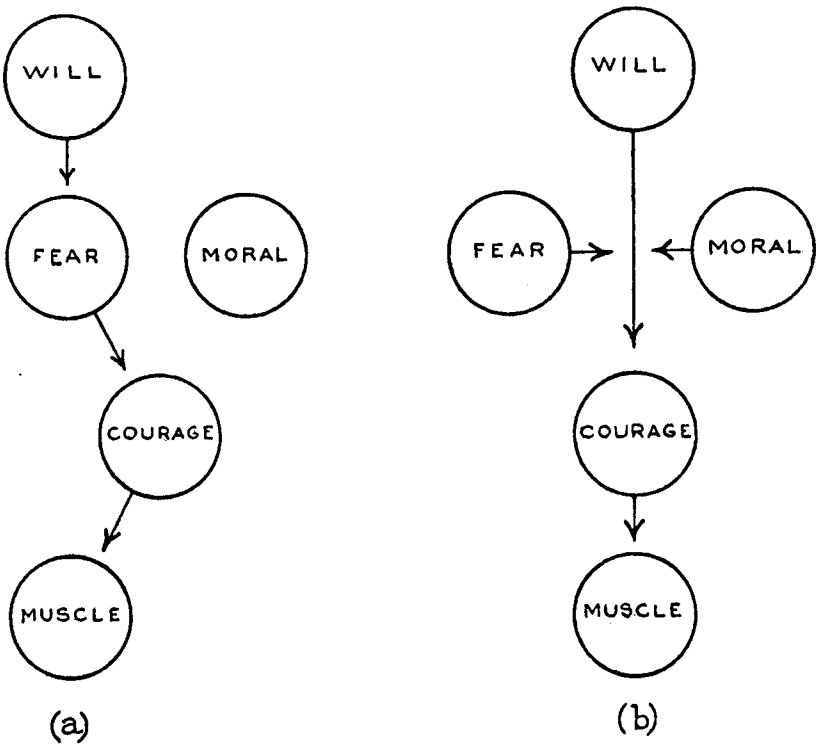

DIAGRAM I.—THE BALANCING OF MORAL AND FEAR.

subconscious and automatic. Primitive man (and still many highly civilized ones) was largely influenced by his instinct of acquisitiveness. To-day normal man does not steal, for his desire to steal has been balanced by the artificial moral reflex called honesty. In war, fear must similarly be balanced, and we balance it by means of what we call *moral*, which draws its strength from the instinct of self-sacrifice, just as fear is derived from self-preservation, and courage from self-assertion.

To recapitulate. Imagination lights up the landscape of the mind; reason takes stock of what the mind sees, and, in arriving at a decision, liberates the will which carries the message delivered to it into the moral sphere. Here it first comes under the attractive and repellent forces of fear and *moral*. If *moral* is weak, fear will block its course, as shown graphically in (*a*) of diagram 1; or, if strong, it will repel fear, and clear the way for the will to co-operate with courage, and through courage with muscle (*b*). If fear blocks the way of the will, the will will react in a direction away from danger; if, however, *moral* were to block the way, the reaction, though towards the danger, would be a very unstable one, such as expressed in rage or frenzy. It is only by balancing these two elements that we obtain a "straight" path for the will to travel along. Fear and *moral* must, in fact, repel each other sufficiently to allow of the full force of the will acting on courage, which in the moral sphere is what will is in the mental.

4. The Element of Fear

As I have just stated, will is balanced by fear and by *moral*, both are essential to the maintenance of will, and when they balance each other the course of will is rationally directed. We do not attempt to annihilate fear by *moral*, but to control it. If fear is under the control of the will, it becomes its most potent weapon; but, directly this control ceases, this weapon, which is a living force, not a mere inert object, turns on its wielder. To make a comparison, for fear substitute a horse. As long as the horse is under the control of its rider it is of service to him; but if it takes control he may be dashed to the ground. Control here is horsemanship; in a war it is manmastership (*moral*). Horsemanship without a horse is a useless quality, and so is *moral* without fear. By controlling fear, *moral* enables the will to execute the dictates of reason, just as horsemanship enables the will of the rider to control his horse and carry out the reason of his ride.

Fear may be moral or physical, and in a war the two are closely related. Isolation, the dread of the unknown and the unexpected, may so unhinge the soldiers' *moral* that some incident, quite unrelated to the imagined danger, may detonate his fear into panic, and, by severing his will from his reason, for a period reduce him to an irrational state. Moral fear, like a mist or fog, magnifies every danger, and by degrees it will so sap the reasoning powers of the soldier that it will create around him a phantom world which to his distorted brain is substantial and

existing. Physical fear, as I think, works on opposite lines. It is not because the soldier does not see the danger that he is fearful, but because he does see it, and so clearly that he cannot avoid seeing it. If he possesses skill and weapons of equal power to his enemy he will see the danger which threatens him as his enemy sees it; if he does not, its form, though none the less true, will be exaggerated, for the degree of the danger which confronts him is directly related to his power of meeting and overcoming it.

Fear unhinges the will, and by unhinging the will it paralyses the reason; thoughts are dispersed in all directions in place of being concentrated on one definite aim. Fear, again, protects the body; it is the barometer of danger; is danger falling or rising, is it potent or weak? Fear should answer these questions, especially physical fear, and, thus knowing that danger confronts us, we can secure ourselves against it. Whilst moral fear is largely overcome by courage based on reason, physical fear is overcome by courage based on physical means.

5. The Element of Courage

Courage is the pivotal moral virtue in the system of war as expounded by Clausewitz. He writes: "Primarily the element in which the operations of war are carried on is danger; but which of all the moral qualities is the first in danger? *Courage.*"[1] And again: "War is the province of danger, and therefore courage above all things is the first quality of a warrior."[2] And yet again: "As danger is the general element in which everything moves in war, it is also chiefly by courage, the feeling of one's own power, that the judgment is differently influenced. It is to a certain extent the crystalline lens through which all appearances pass before reaching the understanding."[3]

"Some people think that theory is always on the side of the prudent," he writes. "That is false. If theory could give advice in the matter, it would counsel the most decisive, consequently the boldest, as that is most consistent with the nature of war, but it leaves to the general to choose according to the measure of his own courage, of his spirit of enterprise, and confidence in himself. Choose then according to the measure of these inner powers; always remembering that there never was a great general who was wanting in boldness."[4]

All this is quite admirable, yet unfortunately the followers of

[1] *On War*, vol. i., p. 20.
[2] *Ibid.*, vol. i., p. 47.
[3] *Ibid.*, vol. i., p. 101.
[4] *Ibid.*, vol. iii., p. 184.

this great man misunderstood him, for replacing courage by ferocity, they established on this misunderstanding the inane theory of the *offensive à outrance.*

Jackson, who in my opinion was a profounder thinker than Clausewitz, examines this subject more scientifically. He says:

> Habits of practice give, to the soldier, such skill and management in the use of arms in the day of battle, as might be expected to be acquired by experience, in working, in unison, the separate parts of a machine of compound movement. The knowledge and ability, acquired by such experience, aided by a correct direction of powers in general movement, ensure the application of united impulse, at the proper time and in the proper circumstances of action, producing a powerful effect, and a calculable one, as depending upon a uniform rule. It is thus that experience of actual war imprints, upon the soldier, the character of veteran—a courage, arising from knowledge of things, and a consciousness of superiority in the art of applying powers. Such courage is cool and tempered: that of unexperienced troops is impetuous, blind, and headlong—liable to mistake its purpose unless plain and prominent in all its aspects.[1]

To Jackson the instinct of courage is not sufficient, any more than natural intelligence is sufficient in order to reason out the operations of war, or physical strength in order to manipulate weapons. Intelligence is the source of reason, and reasoning is a process which can be cultivated; so also with skill, and so also with courage in its military form of determination to conquer and not merely fearlessness of death. I will now examine this element of *moral.*

6. The Element of "Moral"

If we turn to our bodies, we find innumerable cells working on different tasks in order to maintain the structure of our organization. If we turn to society, we find individuals and groups working in the unity we call the nation. Again, in the home, though the primary instinct in man and woman is to preserve their own lives, directly children are born to them self-sacrifice replaces self-preservation. Thus whilst the individual has given us fear, the mated couple has given us something stronger than fear, namely, love, which engenders the highest form of courage, the very genius of courage; and it is on love in its many forms that the *moral* of the soldier is founded. The true soldier must love his country, and we call this affection patriotism; he must respect his leaders, and this virtue is called loyalty; he must

[1] *A Systematic View*, etc., p. 185.

have confidence in his fellows, and we call this comradeship; and, further, he must possess confidence in himself and his arms, and these are called self-respect and skill.

All these virtues, and many others, such as justice of cause, nobility of race, an honourable history, etc., must endow the soldier with a spirit which transcends all selfishness. Knowledge will help him to attain this high standard; but in the stress and turmoil of war knowledge must be backed by an intuition that, if the circumstances demand the sacrifice of his life, he must not hesitate to surrender it, so that his country may endure; just as a man or woman will risk and face death to safeguard their children. Whilst in fear is concentrated all that is brutal in man, *moral* gives to war that sublimity which raises valour to the highest of the virtues.

For the soldier to love his country his country must be worthy of his affection; to respect his officers these men must be worthy of his respect; and so we see that this virtue—*moral*—is not one which can be inculcated by the ordinary, the vulgar, methods of teaching, but one which can only be absorbed, consciously and subconsciously, by the soldier by placing him in surroundings which feed and strengthen what is of essential ethical worth within him. If the soldier feels that his officers are ever striving to preserve his life, to shield him from unnecessary fatigues, and to render his life a happy one, he will, when the occasion demands sacrifice of life, endure to the bitter end, and face the dangers and discomforts of war if only to show his gratitude—that is, his love.

Be it never forgotten that man is essentially a noble beast, for without nobility of character man would never have raised himself to be lord of the animal world. In the heart of the meanest peasant and poorest worker burns a divine spark.

Frequently we cannot see it, yet it is there. It is for us to blow this spark into a flame which will light the will of our men along the cavernous track of war, chasing the shadows from their minds, unmasking fear, mastering it, and compelling it to obedience. To obey the will of a leader is a small act, but for a man to compel fear to obey his will is a great and a wonderful act, and this compulsion is the magic of *moral*.

7. The Meaning of Generalship

In chapter v. I examined the structure of the control of an army, and explained how eventually this control must rest on the authority of one man, a man who possesses the power to say "Yes" or "No." There I dealt with the outer or organic

restrictions and the machinery of control; now I intend to examine the moral side of this question—the ability of a general to express his power of control, when unimpeded by such artificial restrictions as councils of war, and command by conference or committee.

The moral elements, like the mental, are common to both the general and his men, but when compounded their structure is dissimilar. The general has to command, and his men, in order that he may command, have to obey. The instrument through which the general expresses his will must, therefore, be a disciplined one; that is, it must be tuned to react to reason.

In the past (and still to-day) discipline aimed at creating an instrument which reacted to the will of its leader, and the result was automatic in place of intelligent obedience. Though in certain circumstances it enabled the instrument to act with wonderful precision, when these circumstances did not exist it could not act at all, because it possessed no reason to guide it.

In the scientific training of an army the first requirement of soldiership is leadership; each man as an individual must be able to lead himself and the team to which he belongs. This leadership must be intelligent; that is, the soldier must make use of his reason, imagination, and will. He must also be able to change automatically from the active mood to a passive one, and subordinate these mental forces to the will of his leader, not as a blind force, but as a rational force—that is, a will expressing a reason or idea. This idea, the general's idea, as expressed in his plan and governed by the object of the operation to be undertaken, is his true leader, for it is not part of another man, but part of himself. The moral aim of generalship is to attain so close a contact between his reason and the soldier's reason that the two reasons fuse into one and operate as one mental force. This is accomplished by the co-operation of the will of the general and the will of his men in the moral sphere of war.

"In war men are nothing; it is the man who is all,"[1] was a saying of Napoleon's which is only partially true, and less true to-day than in his, for as the men are the implement of the general, and an animated implement, their importance needs no emphasis. Another saying, and a truer one, was: "An army is nothing without a head";[2] in fact, as much use as a bow without an archer, but with this difference—that whilst the bow is controlled by outer and physical force, an army is controlled by an inner and moral force. Jackson expresses this clearly when he writes: "A great and good general is . . . in himself an host; for his influence, insinuating itself into every member of

[1] *Correspondance*, xvii., No. 14283. [2] *Ibid.*, xix., No. 15332.

the military body, connects and binds the whole together imperceptibly, but firmly and securely. Such confidence in a leader is the charm against a panic."[1] By greatness of character a general gains command over himself, and by goodness of character he gains command over his men, and these two moods of command express the moral side of generalship.

In the turmoil of war the condition of mind of a general is the paramount factor. Has he command of himself, and through himself of circumstances, or is he lacking in this self-command? Clausewitz grasped this very clearly. He writes: "This difficulty of seeing things correctly, which is one of the greatest sources of friction in war, makes things appear quite different from what was expected. The impression of the senses is stronger than the force of the ideas resulting from methodical reflection, and this goes so far that no important undertaking was ever yet carried out without the commander having to subdue new doubts in himself at the time of commencing the execution of his work. . . . Firm reliance on self must make him proof against the seeming pressure of the moment."[2]

Here Clausewitz accentuates very clearly the value of resolution in a general, and to a general resolution is what courage is to his men. Yet the pressure of the moment may be actual and not merely seeming. Consequently resolution of itself may cause a general to act like a man galloping into a bog. Besides resolution, a general must possess a sense of caution, which is what fear is to his men, and the relationship between these two is wisdom, which is really common sense, or action adapted to circumstances.

Clausewitz, I think, leans too much on the brutal side; his general is like a charging bull, his head is well down. He possesses great strength of mind, and in place of seeing things correctly, as Clausewitz urges him to do, he refuses to see them at all; he is a magnificent animal, but not a cunning brute. If, now, to this strength of mind we can add a scientific outlook, then I think we shall obtain our ideal general.

To see correctly a general must understand the nature of the changes which take place in war. The enemy does not attack him physically, but mentally; for the enemy attacks his ideas, his reason, his plan. The physical pressure directed against his men reacts on him through compelling him to change his plan, and changes in his plan react on his men by creating a mental confusion which weakens their *moral*. Psychologically, the battle is opened by a physical blow which unbalances the

[1] *A Systematic View*, etc., p. 220.
[2] *On War*, Clausewitz, vol. i., pp. 76, 77.

commander's mind, which in its turn throws out of adjustment the *moral* of his men, and leads to their fears impeding the flow of *his* will. If the blow is a totally unexpected one, the will of the commander may cease altogether to flow, and, the balance in the moral sphere of war being utterly upset, self-preservation fusing with self-assertion results in panic.

Though the attack is one of idea opposed to idea, obviously the first step is to possess an instrument, and to deploy it so that it can withstand the physical shock; the second is to have sufficient physical force in reserve to maintain its strength; and the third is to be in a position to control the expenditure of force. Unless these things are possible, the whole stress of the battle is by degrees directed against the general until he loses control, and his army, without a head to direct it, becomes a panic-stricken mob.

This mental endurance of the general I have already dealt with in the last chapter, but it is so intimately linked with the moral side of war that I have perforce had to return to it. It is the plan which is the moral base of action, and it is the character, the greatness, and goodness in the general which sustains the plan.

To Clausewitz, besides resolution a general must possess *coup d'œil*,[1] which is attained by the "mental" eye rather than the physical. To Napoleon, a Latin, it is "to have a cool head," which never gets heated by good or bad news.[2] The quality varies according to national and racial character, but whatever it is that makes the general great, as good and worthy it must be presented to his men. "The personality of the general is indispensable," said Napoleon; "he is the head, he is the all, of an army. The Gauls were not conquered by the Roman legions, but by Cæsar. It was not before the Carthaginian soldiers that Rome was made to tremble, but before Hannibal. It was not the Macedonian phalanx which penetrated to India, but Alexander. It was not the French Army which reached the Weser and the Inn, it was Turenne. Prussia was not defended for seven years against the three most formidable European Powers by the Prussian soldiers, but by Frederick the Great."[3]

Jackson writes in a similar strain: "Of the conquerors and eminent military characters who have at different times astonished the world, Alexander the Great and Charles the Twelfth of Sweden are two of the most singular; the latter of whom was the most heroic and most extraordinary man of whom history has left any record. An army which had Alexander or Charles in its eye was different from itself in its simple nature. It imbibed

[1] *Ibid.*, vol. i., p. 50. [2] *Correspondance*, xxxii., 182–3.
[3] *Mémoires écrits à Sainte-Hélène*, Montholon, ii., 90.

a share of their spirit, became insensible of danger, and heroic in the extreme."[1]

The great general creates enthusiasm in his men by his mental and moral superiority. It is not merely success which accomplishes this, but prodigious success—success which would have been impossible without the mind of the general. Xenophon and Turenne appeal to the heart; Cæsar, Marlborough, and Frederick showed an all but supernatural skill; Gustavus, Scander Beg, and William Wallace electrify the heart of entire nations; and of Napoleon I cannot do better than quote Carlyle: "There was an eye to see in this man, a soul to dare and do. He rose naturally to be the King. All men saw that he *was* such."[2] This heroism, says Carlyle, is "the divine relation (for I may well call it such) which in all times unites a Great Man to other men." This does not explain much, but it does explain something, for it tells us that a general must possess something which is not common to his men, something which they do not possess and do not fathom. The man of normal ability is soon known to the soldier; a great general must always remain a mystery. He must never be measured; every act must appear a wonder and must rouse the emotions; it must thrill the nerves of his men and electrify their hearts. Therefore I think that originality, when coupled with a clear head and a resolute character, is perhaps the greatest gift of generalship. And to be original he must see things for himself, move amongst his men, and decide of his own accord.

In the last great war we saw no such leadership, because in place of one man controlling armies we find a staff doing so instead. It was a war run by committees and conferences, a slow-moving, inarticulate business, in which that spark of generalship which one man alone can fire, that spark which detonates the heart of the soldier and imbues him with spiritual valour, was entirely wanting. It was a truly democratic war—a Peloponnesian affair without even a Brasidas.

8. The Foundations of Human Nature

Now that I have dealt with the moral aspect of war, with its elements, and with generalship, I will turn to its psychological aspect, and consider in particular the psychology of the instrument. It is a complex problem involving man and men, individuals and crowds, yet in its solution is to be sought the mainspring of leadership.

[1] *A Systematic View*, etc., Robert Jackson, pp. 218, 219.
[2] *Lectures on Heroes*, Thomas Carlyle, lecture vi.

To begin with, I will ask this question : What is human nature, what is character, and what are instincts and impulses ? I cannot enter deeply into this question ; briefly I will answer it as follows : Character is the quality which differentiates man from man ; instinct the quality which relates man to man ; and impulse the product of character and instinct.

From the soldier we strive to obtain war-like impulses, and his character and his instincts are going to affect these. His instincts are common to those of his fellows, consequently character becomes a predominating moral factor in war, and one which may be cultivated, for, though certain qualities of character are inherited, others are acquired. Man is not born honest, or truthful, or loyal, yet these three virtues and many others will help to mould his character as surely as will vices. I will now turn to instinct.

In the individual, human nature is largely based on personal survival through personal striving ; in the family, on family survival through propagation ; and in the race, on racial survival through co-operative effort.

In the first there is a co-operation between the will and the muscles of the individual ; in the second, between the desires and bodies of the opposite sexes ; and, in the third, co-operative striving is directed towards united effort and common survival. The question may now be asked : Co-operation against what ? And the answer is : Against death to the individual, family, or race !

Human nature is, therefore, striving against death, or, conversely, human nature is urging mankind to live. We thus obtain a threefold order—death, human nature, and life ; and, as the physical aim of war is destruction, so the psychological aim is preservation, or the avoidance of destruction ; consequently military psychology includes, not only the cultivation and preservation of human force, but its expenditure in war at the highest profit. Thus, the psychological purpose of war is the materialization of the human will through physical and material means in order to destroy or preserve life, the missing x being death to the enemy or life to his opponent, the first being the negative, and the second the positive, values of this tremendous equation.

9. The Instinct of Self-Preservation

Self-preservation is the master of all life ; directly a healthy child or animal is born, directly a seed begins to sprout, its one instinct or tendency is to live, and this condition remains good until death terminates its striving.

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A seed in the ground will throw out its roots towards moisture, and leaves will turn towards the sun. A hare in the field will lie low on hearing an unfamiliar sound, or a bird will fly away, and man, in his own manner, will do likewise, because in all these cases it is the instinct of self-preservation which cries subconsciously within all: Avoid death; avoid the unknown; live and strive ever to this end.

From that fearful individual, natural man, I will, for a moment, turn to the soldier, for the difference is indeed startling.

What is the soldier? Right through the ages we see him leading the advance. Great nations are born in war, and decay in peace. All things strong, virile, and manly spring up during a great war; and only a few years back we saw among ourselves a whole empire gathered together to meet a common foe, each soldier possessed by one common thought—the conquest of the enemy even at the cost of his own life.

Here we have the answer to our question. It is not drill, nor uniform, badges, or weapons, which make the soldier, but that spirit of self-sacrifice for a cause which he instinctively feels he must follow, which urges him on towards a goal he may never attain, or, reaching it, may receive no further award than the knowledge that through efforts known only to himself he has added to the greatness of his country and to the security of his race. Where the civilian pays in gold, the soldier buys in blood. Where the former seeks material gain—the good things of this earth—the latter seeks an ideal which frequently can endow him with no immediate benefit. It is for this reason—the staking of his life for an ideal—that right through history, which is itself but a relation of wars, the soldier stands forth pre-eminent among the crowd of lesser men.[1]

Man being naturally fearful, whence originates this power of self-sacrifice? Again the answer is: In his nature, which is further controlled by the instinct of the preservation of the family. It is in the cradle where *moral* is born, and in the home where it is nursed into a human force. Every normal man will defend his mate, because his mate is mother of his child. She in her turn will lay down her life for his child, and so abrogate, by the highest act of self-sacrifice, her individual self-preservation for the preservation of the family. Here, then, in the family

[1] Jackson considers that it is pride of honour "which gives a character of pre-eminence to the soldier." And "Where war is undertaken in defence of liberty and national independence, it may be said to move in its highest sphere. It engenders the pride of honour; for it implies the defence of the feeble, the protection of the ashes of the dead, and the security of inheritance for those who are yet unborn" (*A Systematic View*, etc., pp. 215, 217). For a fine description of an army proud of the "honour of its arms" see Clausewitz, vol. i., p. 182.

of our primeval ancestors is to be sought the beginnings of human altruism—the affection for others, the love for little children, the sense of self-right, and race-right, and national-right, of courage throttling fear and of sacrifice scorning prudence. Here among the withered leaves and offal of man's primitive home is to be sought the foundations of society, of politics and law, and *moral* of the soldier.

Behind the soldier there stands this mystical impulse, born of the first mother, born of the first protoplasm which, dividing, lost its individuality, its desire to live, so that its species may survive.

It is this impulse which impels the soldier to do certain things so that his race may continue and prosper. Really there is nothing reasoned about this, and it cannot, therefore, be judged by rational standards—with mental pennyweights and pint pots. It is difficult to follow, as are all psychological factors, and especially those which guide and control masses of men as distinct from individuals.

The growth of the instinct of the preservation of the family leads directly to the instinct of national preservation—that impulse which, when awakened, will urge a whole nation to save its life, just as the instinct of self-preservation bids a man seek protection from danger. But, whilst the individual only seeks to save himself, the nation as a whole thinks little or nothing of the individual; and yet, thinking little or nothing, has, nevertheless, to depend for its own existence on the courage and efficiency of each human unit which goes to build it up. So we see that, notwithstanding how great and prosperous a nation may be, unless each individual, and particularly each individual soldier, is endowed with a will to win—that is, readiness to sacrifice even life for a cause—a nation must decay and perish.

10. The Development of Character

How can we teach the soldier to do this; how can we take an ordinary peace-loving citizen and convert him into a soldier—that is, into a man who is willing to hold back his instinct of self-preservation and sacrifice his life, perhaps for a thoughtless word of command? This is the problem we must solve if we wish to endow our men with that fighting spirit which commands success.

There are two factors we must turn to for assistance; the first is the character of man, and the second is the law of change. Character gives to us our direction; change enables us to concentrate and distribute. Certain men possess characters which are totally unsuited for war, especially for combatant work; these we must avoid, but their class is not a large one,

since most men are in nature primitive, and primitive man is a fighting animal.

And now as to change. All mortal things are born, they live, and they perish; their lives are one continuous change; for no man even for an instant remains the same man. It is truly a wonderful thing to realize that we cannot raise an eyelid, breathe a breath, or utter a word, without our bodies and brains being changed. In fact, there is not a single thing which surrounds us which is not changing us, at this very moment, for better or for worse. This being so, then, because of the law of change, inseparable from life, it is possible for us to take a man, and, through his surroundings, change him from a peace-loving citizen into a soldier—that is, into a man who thinks more of an order than he does of his self-preservation.

How, by applying this law, can we best control the instinct of self-preservation? I will take an example in order to illustrate what I mean.

A child is brought up in some filthy slum, surrounded by squalor; it witnesses theft and listens to lying; drunkenness and sordidness surround it; its life and environments are one long degradation. Is it to be wondered at that this child becomes a criminal? No; for in such circumstances few children will possess sufficient force of character to win the moral battle against these influences.

In place of filth and squalor, drunkenness and theft, I will substitute cleanliness, sobriety, and honesty—the family virtues—and in place of a criminal we get a moral man. I will now add honour, patriotism, and comradeship—the national virtues—and we get the rough elements of the soldier. Suppose that these are developed by adding knowledge, skill, endurance, and pluck—the individual virtues—then we get the fighting man, the soldier, a synthesis in every sense.

We must remember this—a man's mind is being continually bombarded by impressions from outside, and, as his character changes with each shot, it is our duty to see that it changes in the right direction; for, according to his surroundings, so will man himself be, for normal man is but a walking mirror.

II. Character, Instinct, and Impulse

Character and instinct find their expression in impulse; a sudden influence acting on the mind gives no time for reasoning, and the soldier is thrown back on his instincts and his character. If self-preservation is uncontrolled, he acts defensively, or is paralysed; but if he is imbued with self-sacrifice he will stand

and fight it out. Besides these two instincts there are three others which largely influence the soldier, namely, self-distinction, self-deception, and self-confidence.

No healthy man is willing to die or to live unrecognized, though he is willing to deceive himself in a thousand ways in order to avoid the idea of death or of obscurity. It is by stimulating his vanity that we increase his credulity at the expense of his fears and to the profit of his confidence, and thus convert a prudent, cautious being into an idealist, a soldier—that is, a man who is willing to sacrifice his life for the gaining of a cause which very frequently he does not understand. This may seem Machiavellian, but it is not so ; we must take normal man as he is, and in war even stupidity is sometimes a virtue ; for when we are called upon to control masses of men it is normally far easier to lead the dull than the intelligent. This does not mean that intelligence is a vice, but that masses are not suited to its useful expression. When individuals and small units are concerned, intelligence demands a fuller liberty of action, and it should be given it, for dullness here is a dangerous quality. This difference, I think, should be remembered whenever the future developments of war are considered, for on the types of armies which may be required will depend the degree of intelligence we should aim at cultivating.

It must, however, be remembered that deception and praise rapidly volatilize under the influence of acute fear, and that it is fear which, as the expression of the instinct of self-preservation controls the battlefield, and, according to the character of the soldier, urges him to do one of three things : to retire, so as to escape danger ; to remain where he is, and so avoid increasing it ; or to advance and clinch with his enemy, so that danger may be overcome.

12. Factors which Influence "Moral"

Which course he adopts depends on how far his character has been moralized—that is, on his fighting spirit, which, in its turn, depends on the conditions which surround him. These conditions must be such that, though his nerves may be assailed, his confidence in the possibility of his task is not shaken.

This confidence depends on certain factors :

(i.) Limitations to the task set.
(ii.) Ability to carry it out.
(iii.) Encouragement while so doing.
(iv.) Protection during the accomplishment.
(v.) Immunity from danger once the task is completed.

Danger, so far as it affects each individual, must be reduced to a minimum. As this is always difficult, the greater the danger the less must a man doubt his ability to overcome it. Though in war it matters much what an individual can do, it matters far more what he *thinks* he can do; consequently the art of command does not only consist in the power of enforcing obedience, but in stimulating the imagination. Frequently it happens that the soldier who believes that all is right when all is wrong is morally stronger than he who believes that all is wrong, even if his beliefs be justified.

This power of belief does not only depend on the soldier's training, or on the perfection of the organization to which he belongs, but on the loss of the sense of danger. Morally, this is accomplished by reducing his feeling of isolation and increasing his sense of security; physically, by reducing resistance through increasing the power of his weapons.

A saying we frequently hear repeated is that *moral* is to the physical as three to one, and in our turn we often repeat it quite meaninglessly. In some minds this saying of Napoleon's conveys the idea of a feud between the moral and physical means of waging war, so that two schools of thought arise—the *moral* and the *matériel* schools. The first asserts that *moral* is more important than weapons, and the second that perfection of *matériel* is the most potent factor in war.

In my opinion, both schools of thought are wrong, because they base their ideas on a division between the moral and physical spheres of war. No such division exists, any more than it does in man himself. The heart is not superior to the body, or the body to the heart. Together these two form an integration which cannot be separated, and, as the body gives expression to the will, and, through the muscles, protects the brain, so do the physical means of war give expression to the moral, and protect *moral* itself. Consequently if Napoleon's dictum be true, and the *moral* is three times as potent as the physical, then logically we should not leave a stone unturned to obtain all possible superiority of physical means so that our *moral* is given the very fullest security. In the past, so I hold, we have thought far too much on the lines of guts *versus* guns, and when I come to discuss the physical sphere of war I will show that this conception is a fallacious one, and that there is no *versus* in the question. I will now return to the subject of this chapter.

An unlimited objective requires unlimited endurance; this is impossible; consequently the task to be accomplished must be within the mental and physical limitations of man. These powers do not only depend on preparation and training before

battle, but on support and protection during it. Thus men will continue to advance if they know that they are being followed. Their self-deception urges them to believe that the moving masses behind them are immediately protecting them.

This, of course, is not so, for their protection is probably being provided for by invisible guns in rear. The support here is purely moral; it stimulates the nerves of the attackers by reducing their feeling of isolation, just as the bursting shells in front of them, by reducing the enemy's resistance, are physically enabling them to move forward.

The instinct of self-distinction urges men on, for public applause is the greatest of all trinkets, and it would be a shameful thing to lag behind whilst countless eyes are following the advance. Further, it would be a dangerous action, for behind them stands the inexorable law of the soldier which requires certain death for uncertain courage.

Ultimately the instinct of self-preservation, which has filled their hearts with an almost uncontrollable fear of individual danger, explodes into the frenzy of revenge, once the distance between them and danger is so reduced that to fall back would be to commit suicide. Collectively men "see red"; their reason vanishes, their self-deception disappears, self-distinction is forgotten, their whole being crystallizes in one word—kill—or truer, perhaps, in one word—murder, for the bayonet knows no pity.

If complexities arise in the physical struggle of battle, how much more so is this the case when we enter the psychological struggle of will against will, of nerve against nerve, of impulse, of sentiment, and of instinct. Round this struggle, between the souls of men, gyrate success and failure; for, whatever his weapons, his means of movement, and methods of protection may be, ultimately we come back to man—the frail, fearful, yet cunning creature whose supreme aim is life, whether in the peaceful field of trade or among the death-groans of the battlefield.

13. The Character of the Crowd

From the individual I will now turn to a mass of individuals, for the understanding of crowd psychology is the foundation of leadership, which in war is not only complicated by the instability of the crowd "mind" as affected by danger, but by the continuous change of the component parts of the crowd itself due to sickness and casualties in the field.

There are two types of crowds—the heterogeneous and the homogeneous—each of which, under a strong impulse, may

become psychological ; that is to say, it may act like an individual. Thus two men of different education meeting in the street form the smallest type of heterogeneous crowd, two soldiers or doctors, etc., the smallest type of homogeneous.

In both cases there is a relativity of thought, but, whilst in the first there is nothing in common in the crowd except the instincts of each individual to bind this relativity into a unity, in the second case a denominator exists. Ultimately we find that a nation forms a great mass of homogeneous crowds floating in a heterogeneous human vehicle, the whole controlled by a national " soul," the strength of which depends on the mental homogeneity of the mass itself.

In appreciating the crowd, first we must realize that the crowd " mind " is not the average of the minds of the individuals which compose it, consequently intellect counts for next to nothing in a crowd ; secondly, that the common element in each mind—self-preservation, and all that self-preservation includes—counts for much. Thus, taking twenty men, the individual qualities may be $2a$, $4b$, $3c$, $1d$, $3e$, $2f$, and $5g$, but the common quality—fear—will be $20x$, consequently the human spirit will overcome individual character and ability. We find, therefore, that the combination of many minds results in the creation of a crowd " soul " which, though related to each individual soul, is uncontrolled by any rational thinking organ, for the " mind " of the crowd itself is completely dominated by it.

When we analyse the crowd we find that it is swayed by the voices of the past, and that, accepting it as an entity, we discover that that part of it which I have called its " mind " is swayed by that part of it which I have called its " soul," and that this " soul " is dominated by the instincts.

In certain circumstances the conscious personality of the individual evaporates and the sentiments of each man are focused in the same direction. A collective " soul " is then formed, and the crowd becomes a psychological one, and henceforth acts like an irrational individual in place of like a mass of separate rational individuals. The character of the crowd is now determined by certain well-known conditions :

(i.) Its feeling of being invincible, resulting from numbers.

(ii.) Its liability to be persuaded by suggestion, due to its inability to reason.

(iii.) Its instability, due to its liability to mental contagion through suggestibility.

As conscious personality evaporates, subconscious personality forces itself uppermost, so that, directly an idea is suggested,

by contagion all agree to it, and, through the sense of invincibility, all set to work to carry it out. The crowd becomes, therefore, a mere automaton under the will of the suggester, and, through lack of intellect, its acts are always unbalanced and extreme—lower or more exalted than the individual's, according to the nature of the suggestion it has received. The crowd is always latently mad, and its study is virtually one belonging to mental pathology.

The special characteristics of a crowd are its impulsiveness, changefulness, and irritability. It is slave to its impulses, and cannot control its reflex actions. It cannot understand restraint, for it lacks understanding, and the greater its size the more pronounced becomes this loss of power. Its normal state is fury; it is credulous; it is incapable of observation, and it is easily hallucinated; it blindly follows example, and it falls an eager victim to such as use exaggeration, affirmation, and repetition as their tools.

Ruled by its sentiments, all ideas are either accepted or rejected *en bloc*; the crowd therefore lays down the law, and is utterly intolerant. Under weak authority it revolts; under strong it acts with the most debased slavishness; it may be noticed, therefore, that, according to the character of their rulers, crowds pass alternately from anarchy to servility and back again.

The factors which govern crowds may be divided into three classes:

(i.) Distant factors: race, religion, traditions, education, and customs.

(ii.) Immediate factors: images, catchwords, formulæ, and irrational statements.

(iii.) Future factors: promises—in one word, Eldorados. On words masses of men rapidly become intoxicated.

To carry a crowd forward to some desperate deed, all great demagogues have worked on its "mentality" by means of suggestion, the strongest form of which is personal example based on prestige—that is, on accumulated renown—for without prestige affirmation, repetition, and exaggeration lack that electric attractiveness which concentrates the sentiments and emotions of the crowd.

14. The Co-operative Group

A heterogeneous crowd, as I have explained, is a mass of individuals governed by uncontrolled desires which obliterate the individual will; the will is, in fact, surrendered to impulse.

In a homogeneous crowd the mental disintegration of the individual will is slower, unless it be given a definite direction, when the will is endowed with a psychological impulse.

In homogeneous crowds, such as armies, the will of the individual is not so much surrendered to impulse as subordinated to command; it is not effaced, but directed. The mental organization of a co-operative group differs from both of these crowd-forms, for in place of either surrender or subordination of the wills of the individuals these wills are brought into the closest co-operation, and contribute to the growth of purposeful thought.

In the heterogeneous crowd there is a persistent jarring between agreements and differences; in the homogeneous there is a concentration on agreement; but in the group there is a harmonization of the differences, so to speak—the opposites mate and give birth to creative thoughts. It is by overcoming differences that the group learns to live together as a united whole in a state of co-operation.

In an army this unifying group-spirit should control all its parts as groups, and ultimately as one group. That is to say, a section of ten men should not only be endowed with a sectional group-spirit, but this sectional group-spirit should form part of a platoon group-spirit, which, in its turn, forms part of a company group-spirit, and so on through battalion, brigade, division, corps, and army, until it forms part of the national group-spirit itself—the ultimate group. Only by such a process of integration can unity of will, and, consequently, of effort, be attained. In such a group, to attack one individual is to attack the whole group, which moves as one man—an articulated whole in place of an undifferentiated mass.

The strength of a group does not lie in its numbers but in its psychic force, which draws its power, not from the instinctive similarities in the individuals composing it, but from the voluntary harmonization of their differences.

This psychic force attains its highest freedom of action when a complete relationship has been established between the individual wills. This relationship is dynamic; it cannot possibly be static, since the law of change produces a new crop of differences immediately an old one has been reaped. The process of the interpenetration of the individual wills into the group will is, therefore, continuous; it can never cease; and it is this continuity of progress which gives its impulse to creative thought. The universe of mind is never conquered, for directly one world is subdued another rises bright on the horizon, which, in its turn, must be explored and won.

The simpler the organization of the group—that is, the fewer

its differences—the greater becomes the liberty of thought and action of each individual composing it. In the crowd these differences are being perpetually cannoned off one individual against another, and consequently give rise to much friction. A condition which is affected by friction is one lacking in freedom, for it is hedged round by numerous obstacles.

In the crowd, men develop through an incessant struggle in which the fittest survive; in the group, survival is not attained so much by competition as by co-operation—that is, through the art of learning how to live and work together. It nevertheless must not be forgotten that, however perfect may be the organization of a group of men, in essence it is an artificial organization, its only natural prototype being the family. Its foundations are shallow, and it will probably take many generations of groups before they sink deeper, and many hundreds, possibly thousands, before the group-spirit will have grown sufficiently strong to rule the primitive human instincts which control the crowd. This is a most important fact to bear in mind when considering the stability of the military group, an organization which has never as yet been scientifically formulated. Soldiers have hitherto been organized in homogeneous crowds, and as such I will now examine them.

15. The Military Crowd

Turning to the military crowd—that is, any unit of drilled men—we find that it is what Gustave le Bon terms a psychological crowd—that is, a mass of men dominated by a spirit which is the product of the thoughts of each individual concentrated on one idea. If this idea be the "will to win," then the result is that the spirit of the crowd becomes an all-impelling force, urging it on as long as the individual thoughts are concentrated or focused by this will. Should, however, these thoughts be disorganized by a sudden calamity or surprisal, then the natural instincts will intervene, and the will to win will be replaced by the instinct of self-preservation. However perfectly trained a body of soldiers may be, it always tends to become once again the crowd. The power which prevents it doing so is its *moral*. So we find that, as the heterogeneous crowd is swayed by the voice of instinct, a well-ordered army—that is, a homogeneous and psychological crowd—is swayed by the voice of training, uniformity of environment having created within it a uniformity of character and spirit.

In a crowd each man surrenders his personality to his leader.

In an army each soldier subordinates his will. Herein is to be found the quality which differentiates the soldier from the civilian who, as one of a crowd, has little or no power at all, and who obeys on impulse and not on purpose.

An army we find, therefore, is still a crowd, though a highly organized one; it is governed by the same laws which govern crowds, and, under the stress of war, it ever tends to revert to its crowd-form. Our object during peace-time consequently is to train and organize it in such a manner that during war this reversion will become extremely slow; in other words, we should aim at adding to each individual the quality known as *moral*, so that, when intellect and reason fail, man is not ruled by his instincts and sentiments alone, but by his *moral*, which has become part of his very nature.

Suppose that these moral forces are represented by y, we then find that as the individual qualities, the a's, b's, and c's, evaporate, the common quality, x, though it may push itself to the front, is, nevertheless, kept within bounds, directed and controlled by y—the common *moral* of each individual as well as of the crowd in its entirety.

16. The Psychology of Battle

I have now dipped somewhat deeply into the psychology of war, and all that remains for me to do is to weave what I have said into that complex psychological crisis of war which is called battle. The process of doing this is complicated by the fact that man must be considered, not only as an individual, but as a being affected by the psychology of a mass of individuals. In himself man is a separate cell in the military body, but, like a cell, he cannot live apart from this body, for he is affected by all the other cells, and on their moral health depends his own.

In this psychological struggle we start with known conditions: the mentality of the commanders, leaders, and men of an army. We realize from the outset that these conditions are most unstable, even amongst highly trained troops, and that this instability will begin to manifest itself through the sense of approaching danger, even before the first shot is fired. Then this danger, from a mere phantom, materializes into the tyrant of the battle-field as the first shot whistles overhead. There is the will to win, the *moral* to endure, and the sapping of the moral forces through fear. Woe to that army which has not cultivated the first two in days of peace; woe to the commander who has not only endowed his men with the spirit of the justice of their cause, but

has failed to arm them with the most potent weapons, means of protection and of movement, so that confidence in victory, through superiority of equipment has become an instinct in the souls of all.

If the " mind " and " soul " of an army be strong in its strength, then its endurance will be high ; but if, in spite of all its gallantry, men be mown down by thousands, then every shot which shrieks overhead, though it may do no harm physically, inflicts a moral wound. A man is killed ; his fellows seek protection ; some surge forward, others remain behind. *Moral*, the most volatile of spirits, is evaporating under the blast of fear, that grim tyrant who ultimately whispers in the hearts of all : " Thus far, but no farther ! "

As the battle bursts into flame, creative reason holds control or is lost ; imagination rattles the dice of chance and the man obeys, or, like an animal hunting another, acts on his own intuition. Self-sacrifice urges men on ; self-preservation urges men back ; reason decides ; or, if no decision be possible, sense of duty carries the will to win one step nearer to its goal. So the contest is waged, not necessarily by masses of surging men, but rather by vacant spaces riddled by death.

According to the preponderance of *moral* or fear is homogeneity of mind and determination of will maintained or lost. Little crowds fill the battlefield, each with its own little soul trembling before its immediate future. Some advance lethargically, some with enthusiasm ; some watch others, and act in accordance with each other's impulses. The spheres of action are now revolving ; are the leaders still individuals, or have they lost their identity in the crowd ? If so, will some heroic soul re-establish it ? For in the leader lives the impulse to move.

A wounded man shouts, " Are we downhearted ? " and the little crowd surges forward, led by the phantom engendered by his cry. Then gallantly a man sacrifices himself, and again the crowd moves on, impelled by example, by rage, and by revenge. Thus is victory suggested and the will to win revived.

Then some act, frequently unknown to the crowd, tells that the victory is won. Group after group of fighters take up the unheard call, and the man who but a moment before was one of many—an individual without identity—suddenly materializes into human form. Such is the psychology of battle—a climax and an anti-climax, and yet a climax once again. Fear magnifying and rage blinding. A struggle between the bestial and human, between self and self-sacrifice, and then the ultimate relief that danger has been vanquished, that the fields are green, and that life is sweet to live.

17. The Study of the Moral Sphere

We talk a great deal about *moral* and the will to win, yet of all virtues they are the least susceptible to talk and the most to action. Moral force is not like electrical energy; it cannot be stored up in batteries and sold by the kilowatt or any other commercial measurement. Man himself is the battery, and his willingness and instincts are the poles. We have got to link these up by action, both mental and physical, so that, when the soldier is called upon to act, he may act rationally, courageously, and skilfully. Normally we mistake stubbornness or cheerfulness for *moral*; we might as well suppose that oxygen and hydrogen are water; they are not, though they may become water; so if we act correctly may we also become moral instruments.

To ascertain the moral value of an army is of the highest importance in war; why, then, not ascertain it in peace-time, so that we may learn, now and to-day, what to expect of it when war breaks out? Frequently we are told that war is a matter of two wills in opposition; then the supreme question is, What is the respective value of each of these two wills? Though it is difficult to answer this question, it is not impossible to set about seeking an answer. The body of man is strongly influenced by his physical surroundings, so also is his soul influenced by his moral surroundings. What are they?

What is the discipline of an army, and especially the discipline of its officers? Is it based on blind obedience, or does it aim at expanding the intelligence and of stimulating self-command? Is liberty of thought and speech allowed? Are officers permitted to express their opinions; are they educated to respect merit, or merely to acquiesce with senility? Are officers promoted because they are able, or because they are old? Are they rewarded for possessing critical constructive minds, or are they merely pushed on like pegs on a cribbage board? All these and many other questions will tell us the moral worth of an army.

Does fear predominate; or does courage? Is will free to act? Is *moral* the magnetism between will and heart, the idea in the head of one man and the willingness in the soul of another, or is it a mere copy-book precept—a shibboleth? To answer these questions we must watch the officer and the man, and above all the working of the system, and, if we think that it is defective, we must criticize it openly, so that it may blush at our criticism, for criticism is our mental hoe.

Every manual tells us that we are preparing for a war of the first magnitude, but against whom? Nobody can tell; but

this should not dishearten us, for we know that the number of our formidable adversaries is limited, and we also know that the moral mainspring of each army is the character of the nation to which it belongs. If we take the trouble to understand what these characteristics are, then we shall be able to judge the tension of these mainsprings, and, once we know what the respective tensions are, we shall be able to chart out a moral map for each nation, which will give us moral direction in war. Given such a map, we shall not only be preparing for a war of the first magnitude against some unknown adversary, but against each knowable one, irrespective of whom it may be. This is how we should study the moral sphere of war. To keep on repeating like a mantra yogi, that the moral to the physical is three to one, and to do nothing, is about as helpful as saying that the moon is made of green cheese. Does the system we are examining, whether our own or that of another nation, give preference to ability? Does it attempt to foster intelligence and to discover moral knowledge? If it does, then is it a good system; if it does not, then it is a criminal one, for normally it is preparing the army in question, not to win, but to lose the next war.